

## 100 Times Curious – Anveshana Hyderabad

Sl. No.	Project Title	College
1	Arduino Radar (Radar Based Blind Glasses)	Avanthi Institute Of Engineering And Technology
2	Alternative Augmented Communication Application And Gesture Control Mouse	B.V. Raju Institute Of Technology
3	Find It	B.V. Raju Institute Of Technology
4	Follow Me Trolley	B.V. Raju Institute Of Technology
5	Fall Detection Using Accelerometer Sensor	G Narayanamma Institute Of Technology And Sciences
6	Iot Based Smart Waste Management System Using Aurdino	G Narayanamma Institute Of Technology And Sciences
7	Home Automation With Google Assistant	Kshatriya College Of Engineering
8	Ground Water Recharge	Kuppam Engineering College
9	Solar Panel Isolation Using Vajrapaat App	Kuppam Engineering College
10	Solar Powered Pest Reppeler	Kuppam Engineering College
11	Khoa Making Machine	Marri Laxman Reddy Institute Of Technology
12	Railway Refuge System	Marri Laxman Reddy Institute Of Technology
13	Mirror Pi	Marri Laxman Reddy Institute Of Technology
14	Noise Harvesting Hub (Nhh)	Muffakham Jah College Of Engineering And Technology
15	Smart Helmet(Shelmet)	Muffakham Jah College Of Engineering And Technology

16	Corn Used As A Bio-Fuel	Raghu Institute Of Technology
17	Aerophonics- A New Way Of Agriculture	Raghu Institute Of Technology
18	Jal Rakshan-A Traditional Way To Conserve Water	Raghu Institute Of Technology
19	Pervious Concrete Pavement	Raghu Institute Of Technology
20	Plastic Bricks & Paving Blocks Made By Waste Plastic	Raghu Institute Of Technology
21	Plastic Wastage Reuse In Agriculture And Garden	Sri Chaithanya Institute Of Engineering College
22	Traffic Controlled By Elevated Beams (Rollers)	Siddartha Institute Of Technology And Science
23	Eco Friendly Hydroponics Building By Using Free Water Supply	Sri Indhu College Of Engineering
24	Advanced Sub Surface Drip Irrigation By Moisture Sensor	Tudi Ram Reddy Institute Of Tech And Sciences
25	Service At Your Door Step	Vasireddy Venkatadri Institute Of Technology
26	Street Light Project	Vel Tech Multi Tech Dr.Rangarajan Dr.Sakunthala Engineering College
27	Fully Automated Fish Feeding Device	B.V. Raju Institute Of Technology
28	V-NRGY	Jawaharlal Nehru Technological University
29	Soil Health Monitoring Using IOT	Matrusri Engineering College
30	Water Waste Management	B.V. Raju Institute Of Technology
31	Effective Irrigation System	Marri Laxman Reddy Institute Of Technology
32	Smart Craddle	B.V. Raju Institute Of Technology
33	Garland Making Machine	Marri Laxman Reddy Institute Of Technology



34	Advanced Agriculture By Using Sensor And Animal Prevention	Tudi Ram Reddy Institute Of Tech And Sciences
35	Gesture To Voice Translator	Muffakham Jah College Of Engineering And Technology



## Arduino Radar (Radar Based Blind Glasses)

1. What is solar energy?
2. What is wind energy?
3. What is hydal energy?
4. How the solar energy is converted into electrical energy?
5. How the wind energy is converted into electrical energy?
6. How the hydal energy is converted into electrical energy?
7. The solar panel consists of?
8. What is the output voltage of solar panel?
9. What is dc motor?
10. What is generator?
11. What is the working principle of motor?
12. What are the operating voltages of motor?
13. What a dc motor consist of?
14. What is the rpm of dc motor?
15. What is transformer?
16. What are the types of transformers?
17. What is the working principle of transformer?
18. What is mutual induction?
19. What is faraday's law of mutual induction?
20. What is the input voltage of transformer?
21. What is the output voltage of transformer?
22. What is the current rating of transformer?
23. What is rectifier?
24. What are the advantages of rectifier?
25. What is half-wave rectifier?
26. What is full-wave rectifier?
27. What is the output of rectifier?
28. What is bridge rectifier?
29. What is bridge rectifier IC number?
30. Define filter?
31. Why we use filter?
32. What is the value of filter?
33. Define regulator?
34. Why we use regulator?
35. What are the types of regulators?
36. What is the output of regulator?
37. What is regulator?
38. What is led?
39. What is PCB board?
40. What is microcontroller?
41. What are the specifications of microcontroller?
42. Pic stands for?
43. Define ldr?
44. Define sensor?
45. What is the internal resistance of ldr?
46. What are the battery specifications?
47. Which type of battery?
48. What is limit switch?
49. What is the working of limit switch?
50. What is motor driver?
51. What is motor driver ic number?
52. What is h-bridge?
53. What is the operating voltage of motor driver?
54. How many pins a motor driver consists of?
55. Define mosfet?
56. What is the inverter IC?
57. What is the inverter IC number?
58. Which type of waveform generator IC cd4047 is?
59. What is the time constant for waveform generator?
60. What is mean by of setup transformer?

61. Current rating of step-up transformer?
62. What is the use of tantalum capacitor?
63. How the solar power stored in battery?
64. How the wind power stored in battery?
65. How the hydal power stored in battery?
66. What is the input voltage of dc fan?
67. What is the price of transformer?
68. What is the price of rectifier?
69. What is the price of filter?
70. What is the price of regulator?
71. What is the price of resistor?
72. What is the price of solar pannel?
73. What is the price of wind turbine?
74. What is the price of dc motor?
75. What is the price of ldr?
76. What is the price of limit switch?
77. What is the price of microcontroller?
78. What is the price of led?
79. What is the price of motor driver?
80. What is the price of battery?
81. What is the price of inverter IC?
82. What is the price of mosfet?
83. What is the price of step-up transformer?
84. What is the price of tantalum capacitor?
85. What is the price of dc fan?
86. What is the price of LCD display?
87. What is the display capacity of LCD?
88. How many rows in LCD display?
89. How many columns in LCD display?
90. What is LCD driver?
91. What is mean by potentiometer?
92. What is the use of potentiometer?
93. How we can adjust the intensity of LCD display?
94. What is the operating voltage of LCD?
95. What is the operating voltage of microcontroller?
96. What is the operating voltage of led?
97. Which type of motor pump is used for water pumping?
98. What are the advantages of this project?
99. What are the applications of this project?
100. What is the cost of this project?



## Alternative Augmented Communication Application And Gesture controlled Mouse

1. What is sound?
2. What is energy?
3. What is a transducer?
4. How to convert one form of energy to another?
5. How Sound waves are created?
6. How do Sound waves propagate?
7. What is an instrument?
8. Classify transducers?
9. Give an example of transducer?
10. What is primary transducer?
11. What is secondary transducer?
12. What is passive transducer?
13. What is active transducer?
14. What analog transducer?
15. How is loudness of sound measured?
16. What is oscillation?
17. What is amplitude?
18. How is pitch of sound measured?
19. What is a microphone?
20. What is hertz?
21. What is piezo electric crystal?
22. Factors responsible for selection of a transducer?
23. Define zero order transducer?
24. What are acoustics?
25. What is ultrasound?
26. What is infrasonic?
27. What is a sound wave?
28. What are characteristic of sound waves?
29. What is frequency?
30. What is trough?
31. What is SI unit of sound?
32. SONAR stands for?
33. What are longitudinal and transverse waves?
34. What is the speed of sound?
35. What is loudness?
36. What is softness?
37. Uses of sound energy conversion?
38. What is propagation of sound?
39. What is audible range of hearing for human beings?
40. What is KHZ?
41. What is intensity of sound?
42. On what does Speed of sound depend?
43. What is the role of transducer?
44. What is resistive transducer?
45. What is a sensor?
46. What is a bio sensor?
47. What is a chemical sensor?
48. What is active sensor?
49. What is passive sensor?
50. What is a circuit?
51. What is an analog circuit?
52. What is digital circuit?
53. What is a resistor?



54. What is transistor?
55. What is a capacitor?
56. Where are sensors used?
57. Where are circuits used?
58. Where transistors are used?
59. Where capacitors are used?
60. Where resistors are used?
61. What is a mixed–signal circuit?
62. What is a breakout board?
63. What is a PCB?
64. What are different types of circuit boards?
65. How do sounds reach our ear?
66. What is integrated circuit?
67. Why should we use OPAMP?
68. What is the purpose of using Potentiometer?
69. What is the significance of UUC28600?
70. What is a bridge rectifier?
71. Why do we use rectifier?
72. Difference between AC and DC current?
73. What is the measure of current?
74. What is voltage required to charge a phone?
75. How are mobile phones charged currently?
76. Which type of battery is used in phone?
77. What is a USB?
78. What is the role of piezo electric material in this project?
79. How are crystals formed in Piezoelectric Material?
80. Can the heat generated from phone also be used to charge the phone?
81. What is a Multimeter?
82. How can we measure output current using Multimeter?
83. What is IC348?
84. Why do we use colour coding?
85. What is the colour code of 1Kohm resistor?
86. Why should we ground the circuit?
87. What is a ground?
88. What is a diode?
89. What is Emitter?
90. What is Collector?
91. What is a Base?
92. What is the difference between PNP and NPN Transistor?
93. What is Soldering?
94. Why do we use flux while soldering?
95. What is a Jumper wire?
96. How do we differentiate male and female jumper wires?
97. What is the direction of current flow?
98. Why do we use diode in our circuit?
99. How to connect piezoelectric materials in series?
100. How to connect piezoelectric materials in parallel?





## FIND IT

1. What is sensor?
2. What is Bluetooth?
3. How many types of Bluetooth modules are there?
4. What are parts it involves?
5. What is the aim of object locator?
6. What is LED?
7. What is buzzer?
8. What is breadboard?
9. What Basic Components of Electronics?
10. What is the use of PCB?
11. What is the use of Master Bluetooth?
12. What is the use of Slave Bluetooth?
13. What are the components used in Find IT object locator?
14. What is Arduino?
15. Who can use find it?
15. Is all the age group is allowed to the device?
16. What is use of Find it?
17. Operation of Arduino in this Project?
18. Operation of Buzzer in this Project?
19. What is the cost of making this project?
20. Can GPS be used instead of Bluetooth in the project?
21. What is Transistor?
22. What are terminals of Transistors?
23. What is Voltage?
24. What is the function of Bluetooth module?
25. What are Jack wires?
26. What are the sensors used?
27. What is Ultrasonic Sensor?
28. What is the work of IR sensor?
29. What is Current?
30. What is Semi-conductor?
31. What is the range of Bluetooth module in the project?
32. Where can this project be used?
33. Applications of this project?
34. How many objects can be attached to main module?
35. Will the app directly connect to Bluetooth if it goes out of range?
36. How do we fix object with Arduino and setup?
37. How can small objects attached to Arduino and setup?
38. Is charging required for find it device?
39. How is power supplied to find it device?
40. What is the principle followed in designing the device?
41. What are the applications of Bluetooth?
42. How secure a Bluetooth device is?
43. What is pairing?
44. What is Ohm's Law?
45. Power is defined as?
46. Define Bluetooth dongle?
47. Explain the differences between Power classes in Bluetooth?
48. Difference between Bluetooth and Infrared?
49. Are different brands of Bluetooth products compatible?
50. Is Bluetooth practical for use with mobile devices?
51. What kind of encryption will be used for Bluetooth security?
52. What is the range of Bluetooth transmitter?
53. What is the range of Bluetooth receivers?
54. Will Bluetooth and wireless LAN interfere with each other?
55. Will other RF devices interfere with Bluetooth devices?
56. What are some of the uses of Bluetooth?
57. How does Bluetooth fit in with Wifi?
58. How many devices can communicate concurrently?
59. What is pairing?
60. What is the sketch in Arduino?





61. What are advantages of Arduino?
62. What is the size of Nano Arduino UNO?
63. How can program be dumped into Arduino?
64. Can we program Arduino program with C?
65. What is the best platform to create a wireless connection between our smartphones and the device that we control?
66. Can we use python for Arduino?
67. In which language Arduino software was written?
68. Who is the developer of Arduino?
69. Why should we use Arduino?
70. What are the three important parts of Arduino?
71. What is the use of operator in Arduino?
72. What are the software structure functions?
73. What are libraries in Arduino?
74. How to make an app on MIT app inventor?
75. MIT abbreviation?
76. How to create a list in MIT app inventor?
77. Can we use App without Wi-Fi?
78. How to program in MIT app inventor?
79. How to convert MIP app inventor to Java?
80. How to debug the app if it's already released?
81. What is the difference between native apps and hybrid apps?
82. What are the advantages of Native apps?
83. What are the disadvantages of Native apps?
84. What are advantages of Hydrid apps?
85. What is the Voltage?
86. Why is transistor used?
87. How Insulators can be used?
88. What are the applications of Insulators?
89. What is Diode?
90. How Diodes can be used?
91. What are the applications of diodes?
92. What is Semi-conductor?
93. Where Semi-conductors can be used?
94. What are the applications of Semi-conductors?
95. What is soldering?
96. What are male and female jack wires?
97. What is an IOT?
98. What is raspberry pi?
99. What are the uses of Raspberry Pi?
100. Difference between Arduino Uno and Raspberry Pi?



## FOLLOW ME TROLLEY

1. What is Electronics?
2. What is Resistor?
3. Why Resistors are colour Coded?
4. What are parts it involves?
5. What is RPM?
6. What is LED?
7. What Basic Components of Electronics?
8. What is the use of Resistors?
9. What is the use of Capacitors?
10. What is Switch?
11. What is Voltage?
12. What is the function of DC Motor?
13. What is LED?
14. What are the sensors used?
15. What is Ultrasonic Sensor?
16. Why is ultrasonic sensor not used to measure distance between bot and particular human?
17. What is the function of a servo motor?
18. What is Current?
19. Applications of this project?
20. What is the role of compass in the project?
21. What library is used to operate compass?
22. How do we fix Resistors?
23. Which formula shows a direct proportionality between power and voltage?
24. With 1 mA of current, what wattage rating should a 470 ohm resistor have?
25. How is a 3.9 k $\Omega$  resistor color-coded?
26. What are the Basic forms of Energy?
27. What is Ohm's Law?
28. Power is defined as?
29. With Ohm's law, no change in resistance means that current and voltage will be?
30. A potentiometer has how many leads?
31. What does course mean in terms of compass?
32. What is heading in terms of compass?
33. What does bearing imply in a compass?
34. What is heading degree?
35. What is turn degree?
36. What is Arduino?
37. How many analog pins are there in Arduino?
38. How many digital pins are there in Arduino?
39. Why is serial print done when it is not having any effect on the hardware working?
40. What is the language used for programming Arduino?
41. What is PWM?
42. What is GPIO?
43. What is ARef?
44. What does a buck convertor do?
45. What does a boost convertor do?
46. What is the purpose of Bluetooth in this project?
47. Why is Bluetooth 4.0 preferred?
48. What was the disadvantage in HC-05 module?
49. What is GPS?
50. Why could GPS not be used for our project?
51. What is ESP32?
52. Why is ESP32 used?
53. Why was ESP8266 not used?
54. What is dual core processor?
55. Does ESP32 support dual core?
56. What is RSSI?
57. Why is RSSI calculated in our project?



58. How does RSSI vary with distance?
59. WiFi has RSSI too but why was WiFi not used?
60. RSSI only gives distance so how is direction estimated?
61. How much accurate is Bluetooth when compared to WiFi?
62. How does the ESP32 scan for the exact Bluetooth device it is looking for?
63. What is SERVICE UUID?
64. Using what function can SERVICE UUID be set?
65. What function is used to retrieve the SERVICE UUID?
66. What is BLE?
67. How is BLE different from classic Bluetooth?
68. What does advertising Bluetooth mean?
69. Why is it necessary for the device in user's had to advertise itself?
70. What information does the BLE Advertised Device contain?
71. How do we get the address of BLE device?
72. How can we set the name of ESP32 BLE?
73. How do we retrieve the name of BLE device?
74. Is it possible for phone to advertise Bluetooth normally?
75. What is the function used to figure out the RSSI?
76. What is the datatype of scantime?
77. What is the minimum scantime possible?
78. What is serial communication?
79. How can it be achieved in ESP32?
80. What is the working of RX pin?
81. What is the working of TX pin?
82. Will communication take place if RX-RX connected and TX-TX connected?
83. What is the mode it goes to when RX-RX is connected and TX-TX is connected?
84. What is SoftwareSerial?
85. What is HardwareSerial?
86. How is SoftwareSerial different from the normal serial monitor?
87. What is baud rate?
88. Why is wheel alignment necessary?
89. What is the use of delay in any program?
90. What are the types of servo motor?
91. Can a servo motor turn in both clockwise and anticlockwise direction?
92. What is digitalWrite?
93. What is analogWrite?
94. Why is analogWrite used in DC motors?
95. How is servo motor different from DC motor?
96. What is the use of motor driver?
97. How many DC motors can be controlled using L298n motor driver?
98. Why is there a need for heat sink in motor drivers?
99. What happens when Enable pins in motor driver are short circuited?
100. Is it possible to control speed of motor when enable pins are short circuited in motor driver?



## FALL DETECTION USING ACCELEROMETER SENSOR

1. In which states is Anveshana being conducted?
2. Is it wireless communicator?
3. What are the two class specifications of fall detection systems?
4. What are the devices used in this system?
5. What is the principle behind fall detection using accelerometer?
6. Is it a portable and environmental friendly device?
7. What are the two main approaches to detect the falls?
8. What type of acceleration is used to detect the fall?
9. Does the device change its shape during the fall?
10. What is gyroscope?
11. Where is gyroscope used?
12. Is the implementation of this system is very simple?
13. What are the benefits of fall detection using accelerometer?
14. What is a fall detection system?
15. How are falls detected through radiations?
16. Does the accelerometer have any radiating effect on the person?
17. What is process of fall in a human body?
18. What is the acceleration of human being called?
19. What is triaxis accelerometer?
20. What is the principle of fall detection algorithm?
21. How do we detect the poster phase?
22. What are the four types of fall activities?
23. What is the best orientation of the sensor unit in the device?
24. What is Sensitivity and Give its formula?
25. What is Specificity and Give its formula?
26. How can we relate Sensitivity and Specificity?
27. What are steps involved in the process of detecting and sending a message to are taker?
28. What are the limitations of the device?
29. What is the current and voltage required for working of device?
30. What is fall alarm?
31. What is MCU?
32. What is the maximum frequency the MCU chip can operate?
33. What are the features of ARM-Cortex-M3 based MCU?
34. What are activities determined by the accelerometer as falls?
35. How do we obtain acceleration and Euler angle?
36. What is proposed fall detection algorithm?
37. How do we identify the threshold of acceleration?
38. What are thresholds?
39. What are the different methods of fall detection?
40. When does the acceleration of the body change?
42. Is this a power saving device?
43. If the battery of the device runs out? what happens?
44. What values are used to represent the direction of the human body?
45. What values are used to represent the posture of the human body?
46. If the fall occurs backward without the waist touching the ground?
47. Is the device water-resistant?
48. If the fall occurs in the water? What happens to the person?
49. If the person, who gets the message, switch off his/her phone? What happens?
50. For which age people is this device useful?
51. How can we differentiate between falls and ADLs?
52. Can. this device be accessed from any mobile networks?
53. Can this fall alarm send message to multiple care takers at once?
54. Can this device be hacked? If yes, then how can we secure it from such cyber issues?
55. What can be the average cost of this device?
56. Can a physically disabled person use it? How?



57. Can this device send a voice message to a care taker?
58. Does an accelerometer give out radiation?
59. What is used to determine whether motion transitions are intentional or not?
60. What are the features of fall detector using accelerometer?
61. Is a fall detector using accelerometer cost- efficient?
62. How does a fall detector work?
63. How many kinds of static postures can the device recognize?
64. how does an accelerometer work?
65. What makes it difficult to distinguish real falls from certain fall like activities?
66. What is used as a means of detecting falls?
67. Can an accelerometer sense rotation?
68. What are the advantages of fall detector using accelerometer?
69. What is anveshana?
70. How can we be benefitted by participating in anveshana?
71. What is the objective of Anveshana?
72. What are the advantages of accelerometer?
73. Can an accelerometer measure acceleration in only one direction?
74. What can the device employ to determine the location of an individual who had suffered a fall?
75. Within how much time after the fall does the alarm unit call the care team?
76. Who do the care team contact after detecting a fall of an individual?
77. Do watches have this device?
78. Is a fall detector using an accelerometer easy to use?
79. Is this device affordable for every housing?
80. How accessible is this device?
81. What is the accelerometer's response to different types of motion?

82. To which shape does the accelerometer change during the process of accidental fall?
83. What is the first basis for determining the fall status?
84. What is the principle behind the working of a fall detector using accelerometer?
85. When will a critical alert be sent?
86. Does the fall- detection sensor have wireless communion?
87. Which devices are deployed in the environment to detect falls?
88. Is a fall detector using accelerometer easy to install?
89. What are the parameters that are calculated using the accelerometer?
90. What is a fall detection system?
91. What are the negative consequences shown to be associated with the fear of falling?
92. What is the key factor that determine the severity of a fall?
93. There may be no movement when an individual is sleeping. What happens then?
94. Which fall detector using an accelerometer is better? - Wearable device based, ambience sensor based or camera based?
95. What is a fall detector using an accelerometer's main objective?
96. On what terms is the performance of the detector expressed?
97. What happens to the fall detector when a person is going out?
98. Is this device portable?
99. What are the detection techniques dependent on?
100. What do all methods in a fall detector using an accelerometer start with?





# IOT BASED SMART WASTE MANAGEMENT

1. What is Electronics?
2. What is Resistor?
3. Why Resistors are colour Coded?
4. What are parts it involves?
5. What is RPM?
6. What is LED?
7. What is Capacitor?
8. What is Capacitance?
9. What Basic Components of Electronics?
10. What is the use of Resistors?
11. What is the use of Capacitors?
12. What is Switch?
13. What are the Clap Switch Components?
14. What is Relay?
15. What is the Number of Threaded rods used?
16. What is relay Design?
17. What is use of Relay?
18. Operation of Clap Switch in this Project?
19. Operation of Buzzer in this Project?
20. What is LDR?
21. What is Transformer?
22. What is Transistor?
23. What are terminals of Transistors?
24. What is Voltage?
25. What is the function of DC Motor?
26. What is LED?
27. What are the sensors used?
28. What is Ultrasonic Sensor?
29. What is the work of IR sensor?
30. What is Current?
31. What is Semi-conductor?
32. Number of Resistors used in Clap Switch?
33. Difference between Condenser mic and Normal mic?
34. Applications of this project?
35. Reasons for placing two-threaded Rods?
36. What is the Resistivity of Copper?
37. How do we fix Resistors?
38. Which formula shows a direct proportionality between power and voltage?
39. With 1 mA of current, what wattage rating should a 470 ohm resistor have?
40. How is a 3.9 k $\Omega$  resistor color-coded?
41. What resistor type is found in SIPs and DIPs?
42. What are the two major categories for resistors?
43. How many connections does a potentiometer have?
44. What are the Basic forms of Energy?
45. What is Ohm's Law?
46. Power is defined as?
47. What is the most commonly used conductor in Electricity?
48. With Ohm's law, no change in resistance means that current and voltage will be?
49. A potentiometer has how many leads?
50. What is the ratio of 13 to 47 expressed in Percentage?
51. What happens to Current and Resistance if the Voltage Doubles?
52. One problem with mechanically variable resistors is noticeable in audio circuits as?
53. A colour code of orange, orange, orange is for what ohmic value?



54. A conductor's cross-sectional area in circular mils for  $\frac{1}{2}$  inch is:
55. Power is measured in units of:
56. How many basic types of resistors exist?
57. With a complex circuit, a supply source senses:
58. How many ohms of resistance allows a current of 720  $\mu$ A to flow when 3.6 kV is applied?
59. Which is the most important step utilized when measuring resistors?
60. Components designed to oppose the flow of current are called?
61. How many amps are used by a 100 watt, 120 volt light bulb?
62. The source is 24 volts and the load resistance is 100  $\Omega$ . What is the load current?
63. Resistors are identified as to wattage by?
64. What type of resistors has a tolerance rating of 5% or greater?
65. Resistor tolerance is either printed on the component, or is provided by?
66. How many connections does a rheostat have?
67. What are the parts of a rheostat?
68. The load resistance increases. How will the load current change?
69. What is the power dissipated by a 1.2 k  $\Omega$  resistor with 12 volts across it?
70. How many joules of energy will a 10 W lamp dissipate in one minute?
71. Which type of test equipment is used to measure resistors?
72. What is Resistance?
73. If resistance decreases, then current will:
74. A wire with a smaller cross-sectional area will produce?
75. A 22-gauge wire will have a diameter in mils of?
76. The word *work* means that?
77. A good fuse will have?
78. What property does an incandescent lamp possess?
79. One advantage of a carbon film resistor over a carbon composition resistor is?
80. If a metallic conductor has a positive temperature coefficient of resistance, then?
81. What value of a  $\pm 5\%$  1.3 k  $\Omega$  resistor as measured by a digital voltmeter would be considered within tolerance?
82. For  $P = V^2/R$ , a decrease in resistance should produce:
83. After a lamp is turned on, its filament resistance will change to become:
84. Wire wound resistors are usually used in circuits that have:
85. How is power dissipated in a resistor?
86. Resistance in a circuit is:
87. The unit designator for resistance value is the:
88. One ampere of current flowing through one ohm of resistance is equal to:
89. What is Insulator?
90. What are Good Insulators?
91. How Insulators can be used?
92. What are the applications of Insulators?
93. What is Diode?
94. How Diodes can be used?
95. What are the applications of diodes?
96. What is Semi-conductor?
97. Where Semi-conductors can be used?
98. What are the applications of Semi-conductors?
99. What is Rectifier?
100. Where can we use rectifiers?





# HOME AUTOMATION USING GOOGLE ASSISTANT

1. What is Home Automation?
2. What is Google Assistant?
3. How is Google assistant linked with home appliances
4. What is node MCU?
5. What is a relay?
6. What is 4-channel relay?
7. What is the difference between relay and 4-channel relay?
8. How does relay work?
9. What is the principle behind the relay?
10. What is a jumper?
11. How many types of jumpers are there?
12. Can't we use connecting wires instead of jumpers?
13. What is the program?
14. How a write a program?
15. What are the instructions to write a program?
16. Where we will write the program?
17. Why the program is written?
18. How the program is uploaded?
19. How the node MCU receives the program?
20. How can we know that program is uploaded?
21. How can we use IDE Software?
22. Is IDE is used only for microcontrollers?
23. How to use Arduino?
24. Can we check the errors present in the program?
25. What is a hotspot module?
26. Can we operate the appliances from our school?
27. How to see the status of our appliances?
28. Can we off them from school?
29. Can I operate appliances from USA?
30. What is the app used?
31. How does the BLYNK app used?
32. How to get connected with that app?
33. What is the Gmail?
34. What is authtoken?
35. How the switches are created?
36. Does they show the status of appliances
37. What is the use of authtoken
38. How many letters it consist of?
39. How this app is connected with Google assistant?
40. What is the link between blynk app and Google assistant?
41. How this two are linked?
42. What is IFTTT?
43. How does the IFTTT get inked with blynk app and Google assistant?
44. What is a applet?
45. Why to create an applet?
46. How the applet gets linked with blynk app?
47. What is triggering?
48. Why to trigger the applets?
49. Is it necessary to trigger the applet?
50. How the appliances get linked with the triggers?
51. Why the battery is used
52. Can we use power bank instead of battery?
53. Why we are using battery when our home appliances are of 230volts?
54. Can we apply this in farming?
55. For whom this project will be useful ?
56. What are the uses of this project?
57. How can you implement this project?
58. Can this project reach the poor farmer?
59. What are the cons of this project?
60. How switches can be made in blynk app?



61. How the Google is linked with appliances?
62. What is the difference between Google and IFTTT?
63. What are the hidden things in the project?
64. How does the Node MCU works?
65. Is Node MCU is a microcontroller?
66. What plays a key role in the project?
67. Are there any fluctuations in this project?
68. How the node MCU and relay are connected?
69. Where the program is uploaded?
70. How to upload the program?
71. Anyone can install the software?
72. What is the protocol of this project?
73. Can a illiterate person use this project?
74. Is there any use of mobile?
75. Can a common person solve the problems?
76. Is this project done by someone else before?
77. How did you get the thought of doing this project?
78. What are the losses if this project if this won't exist?
79. How this project is useful for employees?
80. Is there any harm for children?
81. Can we do this project without Node MCU?
82. Where these components are placed at home?
83. How many days this project affects?
84. Is there any caution for placing the component?
85. What is the time requires to ON this circuit?
86. Do the components get affected if they are placed together?
87. Is any care is required?
88. What types of jumpers are used?
89. Is there any problem of loose connections?
90. Should we change the batteries?
91. Can we use any sensor to know the battery?
92. How the google assistant takes commands?

93. Can this circuit gets shocks?
94. Can we use plastic to avoid shock?
95. What is the voltage required to ON the circuit?
96. What is the time required to ON the circuit?
97. Does it get ON automatically?
98. Does it works with inverter?
99. Is internet is needed in this project?
100. Is the wifi is needed?



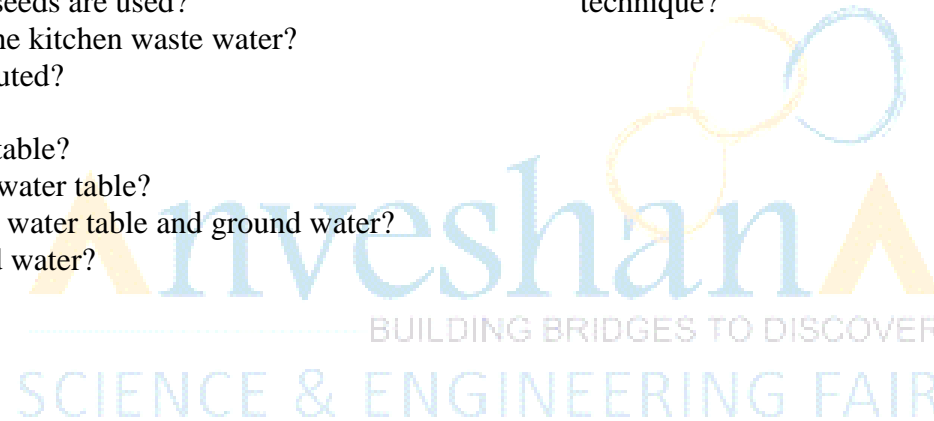
## GROUND WATER RECHARGE

1. What is RO waste water?
2. What type waste water used in the model?
3. What is hardness?
4. What are the types of hardness?
5. What are the disadvantages of hardness?
6. How to find hardness in a sample?
7. How to reduce hardness?
8. Which type of chemicals present in the RO waste water?
9. What are the chemicals present in the kitchen waste water?
10. What is turbidity?
11. How to find turbidity?
12. How to reduce turbidity?
13. What are the physical properties of drinking water?
14. What are the physical properties of waste water observed from the test?
15. What you observed from the results?
16. Which standards are you used?
17. What are the disadvantages of turbidity?
18. What are the chemical properties of drinking water?
19. What are the chemical properties of waste water observed from the test?
20. What are the biological properties of drinking water?
21. What pH?
22. Who invented pH?
23. Which tests are used to find pH?
24. what is acidity?
25. Which method is used to determine the acidity?
26. How to remove acidity present in the water sample?
27. How to remove acidity?
28. What is alkalinity?
29. How to test alkalinity?
30. What are the disadvantages of alkalinity?
31. How to remove alkalinity?
32. What do you mean by filtration?
33. What are the materials used in your model?
34. What is the size of fine aggregates?
35. Why fine aggregates are used in the model?
36. What is the size coarse aggregates?
37. Why coarse aggregates used in the model?
38. What is the size of charcoal?
39. Why charcoal used in the model?
40. How many number of seeds are used in the model ?
41. Why okra seeds are used?
42. What are the properties of okra seeds?
43. Why moringa oleifera seeds are used?
44. What are the properties of moringa oleifera seeds?
45. What principle are you used in the model?
46. What is ground water table?
47. What is permeability?
48. What is aquifer?
49. What is confined aquifer?
50. What is unconfined aquifer?
51. Which soil has more permeability?
52. Which soil has less permeability?
53. How to increase ground water table?
54. What are the sizes of collecting tank for residential building?
55. What are the sizes of apartments?
56. How to collect waste water?
57. How to insert the layers?
58. What is the life span of each layer?
59. Which materials are used to maintain the surface layer?
60. What is the difference between drinking water and tap water?



61. What is the effect of oil on sand bed?
62. How to remove iron and manganese?
63. What is the effect of hardness on seeds?
64. Due to which force the water will move down?
65. What are the factors effecting ground water table?
66. What is the general process of recharge of ground water table?
67. How the water percolate from the collecting tank?
68. Why colour and odour occurs in the waste water?
69. What are the effects of odour and colour?
70. How to remove colour and odour?
71. Why only okra and drumstick seeds are used?
72. How to collect solid waste in the kitchen waste water?
73. How ground water will be polluted?
74. What is zone of aeration?
75. How deep is the ground water table?
76. Where do you find the ground water table?
77. What is the difference between water table and ground water?
78. What are the 3 zones of ground water?
79. What is vadose zone?
80. What is capillary fringe?
81. What is saturated zone?
82. Is ground water safe to drink?
83. Where ground water stored?
84. How is ground water treated?
85. Where aquifers are found?
86. What is the unit weight of water?
87. What is the effect of carbohydrate and fats to sand bed and seeds?
88. Why grass are used in the top of the layer?
89. What is the effect of chlorine ?
90. How to remove chlorides?
91. How to reduce hardness by using moringa oleifera seeds?

92. How to reduce turbidity by using okra seeds?
93. What are the process to recharge of ground water from this filtration?
94. In which places we can easily recharge the water?
95. Which season is best suitable for recharging the ground?
96. what is the working principle of filtration model?
97. Based on which standards you design the collecting tank?
98. If any rock material present ,then how to percolate the water?
99. Which type of chemicals can be removed by this model?
100. Which type of chemicals can be removed by percolation technique?



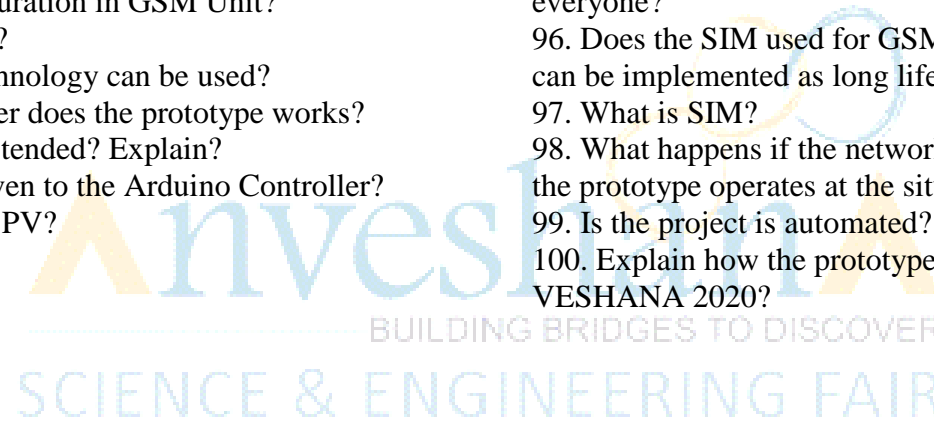
# ISOLATION OF SOLAR PANEL VAJRAPAT APP

1. What is Electronics?
2. What is Solar Energy?
3. How Solar power is generated?
4. What is GPS?
5. How GPS tracks the device?
6. What is Arduino?
7. What are the types of Arduino?
8. Why Arduino NANO is only used in this system?
9. What is GSM?
10. What is Relay?
11. Explain the operation of an Relay and its functionality in this proposed project?
12. What is lightning?
13. How much amount of Electricity does Lightning Generates?
14. What is the status of Solar Energy generating per day in state and Country wide?
15. What is Voltage Regulator?
16. Illustrate the use of Voltage Regulator in the project?
17. What is diode?
18. What is Transistor?
19. What is the Effect of Lightning?
20. What is Lightning Arrestor?
21. What is Solar PV?
22. How does this project is useful than existing System?
23. What is Isolation?
24. What is Vajrapaat App?
25. How Vajrapaat helps to isolate the solar panel from Generation Unit?
26. What is LCD?
27. What is solar panel?
28. Explain the pin configuration of Voltage Regulator?
29. What is Jumper wire?
30. Explain about the Software implemented in the project?
31. Which type of software are used?
32. Does the project is worked on a solar power plant?
33. What is the status of Operation Head from Solar Plant regarding the Project?
34. Is this system can be implemented in other sectors?
35. Does power production by using this system?
36. Whether the Solar power continues generates automatically once after isolated?
37. If Yes/No Explain the Reasons?
38. Vajrapaat app can also be used for other projects?
39. What are the additional features/uses we can avail from proposed system?
40. How does this project differentiated from the Lightning Arrestor?
41. Does the Power demand gets affected with this project?
42. What is the need of the project?
43. Explain about Earth termination system?
44. Explain about Surge protection measures?
45. What is Resistor?
46. Which type of Relay are used in the project?
47. What is LED?
48. What is Buzzer?
49. What is the necessity of the Buzzer?
50. Which range of Buzzer is used?
51. Does buzzer continues working till the solar panles get connected back?
52. What is Voltmeter Reading?
53. What is Capacitor?
54. Explain the use of capacitor in the project?
55. What is Bread Board?





56. What is Dot Board?
57. Explain the duration of Vajrapaat app working condition?
58. If the Lightning is observed by app but no strikes are observed then the solar panel gets connected immediately?
59. Does it affects the power generation?
60. What is Push Button?
61. What is Switch?
62. What is Rechargeable Battery?
63. Why Rechargeable Battery is used?
64. Explain the Range Of Battery used?
65. Explain about Network Configuration in GSM Unit?
66. How Arduino controls the unit?
67. Rather than Arduino other Technology can be used?
68. At how many distance/kilometer does the prototype works?
69. If means the distance can be extended? Explain?
70. How much Input Voltage is given to the Arduino Controller?
71. Explain the Operation of Solar PV?
72. What is GPRS?
73. What is SIM800?
74. What is USB Port?
75. What are the types of LCD?
76. What is Energy?
77. What is Renewable Energy?
78. What is non-renewable Energy?
79. Explain about Solar Cables?
80. What are effects of cables due to lightning?
81. Explain the classifications of solar energy technologies?
82. Derive the Technical Potential of Renewable Energy Technologies?
83. In what factor does Vajrapaat app was developed?
84. Does Human Intervention is needed for the project?
85. Is Humans are affected in anyways with this System?
86. What is SMS?
87. What is the units of Power Generated?
88. What are the features of SIM800?
89. What is Serial Port?
90. What is USB Port?
91. What is the Estimated cost of project?
92. Explain the Market Value available for developed prototype?
93. Does this System can be implemented in Agriculture?
94. If Yes Explain How it can be done?
95. Dependence on the market value is the system is useful to lend by everyone?
96. Does the SIM used for GSM need to be recharged certainly or can be implemented as long life plans?
97. What is SIM?
98. What happens if the network is slow during Lightning and does the prototype operates at the situation?
99. Is the project is automated? Explain?
100. Explain how the prototype is further extended after AN VESHANA 2020?



## SOLAR POWERED PEST REPELLER

1. What is electronics?
2. What is pest repeller?
3. What is crop yielding?
4. What is solar energy?
5. How solar energy is generated?
6. What is meant by relay?
7. What is ultraviolet light?
8. What is diode?
9. What is meant by transistor?
10. What is PCB?
11. What is meant by battery?
12. What is Light Emitting Diode?
13. What is resistor?
14. What is meant by resistance?
15. What is meant by capacitance?
16. What is capacitor?
17. What is electric shock?
18. What is meant by high voltage circuit?
19. How voltage can be measured?
20. What is ultrasonic?
21. What is ultrasonic sounds?
22. What is ultrasonic sound generator?
23. What is voltage?
24. What is transformer?
25. What are the types of resistors?
26. What is step up transformer?
27. What is voltage regulator?
28. What is zener diode?
29. What is Electrical power?
30. What is alternating current?
31. What is direct current?
32. What is Light Dependent Resistor?
33. What are the terminals of transistor?
34. What are the types of transformer?
35. What is semiconductor?
36. What is insulator?
37. What is conductor?
38. What is fuse?
39. What is frequency?
40. Is ultrasonic signals will effect to human beings?
41. What is meant by biological conditions?
42. Define inductor?
43. What is Free Wheeling Diode?
44. What is ohm's law?.
45. Define current?
46. How can measure current?
47. Explain about counter?
48. What will happen when battery terminals are shorted?
49. What is the range of ultrasonic signals?
50. What is repeller?
51. What are the conventional energy sources?
52. What are non conventional energy sources?
53. What is the units of resisrance?
54. What is the units of capacitance?
55. What are the different types of capacitor?
56. What is meant by AC capacitor?
57. What is DC capacitor?
58. What are the different types of batteries?
59. What is the units of power?
60. What are the types of ultrasonic sound generators?
61. Explain about interrupt counter?
61. What is switch?





62. What is ground?.
63. What is serial connection?
64. What is parallel connection?
65. What is coil?
66. What is illumination?
67. Applications of pest repeller?
68. Explain about high frequency transformer?
69. What is rectifier?
70. What are the types of rectifiers?
71. What is filter?
72. What is DMM?
73. What is CRO?
74. What is solder iron?
75. What material is used for solder?
76. What is slide switch?
77. What are the types of switches?
78. What are the features of proposed system?
79. Limitations of proposed system?
80. Which materials used in LDR?
81. Advantages of proposed system?
82. What is mesh?
83. Why resistors are colour coded?
84. What are the basic components of electronics?
85. What is buzzer?
86. What are the applications of diode?
87. What are the protective measures of proposed system?
88. What are the applications of high frequency transformer?
89. Which material used in solar panel?
90. What are the types of diode?
91. Explain the working of proposed system?
92. What is the conducting voltage of diode?
93. What is the cost of proto type?
94. Is this proposed system extended in future?
95. What makes this product to buy the farmers?
96. Is this proposed system is automatic?
97. How to place this device?
98. Is the data analysis is possible?
99. At what frequency the pests will be repelled from the agriculture fields?
100. What makes you to do this pest repeller?



## KHOA MAKING MACHINE

1. Disadvantages of existing machine?
2. Advantages of our machine?
3. Why a disc is used to attach stresses?
4. Why vessel is truncated shape?
5. Why 3 stresses are required?
6. What is the function of side stirrer?
7. What is a scraper?
8. What is capacitor?
9. How speed of motor is reduced?
10. Why gear box is used?
11. Why do we prefer gear box over dimmer?
12. What is coupling?
13. What is the role of bearing in this machine?
14. How many types of fuels can be used?
15. Can we run motor on inverter?
16. Why counter weight is important?
17. Why base is oval in shape?
18. What is the role of slots on disc?
19. How height is adjusted?
20. What is the range of volumes of vessel?
21. Why stainless steel is used for vessel?
22. How stirrer heights can be adjusted?
23. How stirrer and scrapper can be separated?
24. How round cylindrical object for the machine is manufactured?
25. How slots were made on disc?
26. How distance between stirrers increased?
27. How many types of fuel can be used?
28. Can er use timber for cooking khoa?
29. How khoa is made?
30. Can we cook other than khoa using this machine?
31. How torque is developed?
32. What is the orientation of motor?
33. What is the use of hub?
34. What is the material of base?
35. What is the motor type?
36. How threading is done on scrappers?
37. How khoa is removed from the vessel?
38. What happens if we don't use capacitors?
39. What is the effect on the motor after khoa becomes thick?
40. How much power is consumed by the machine?
41. How this machine varies from existing one?
42. Why top mounting rotor is used?
43. How motion and stresses are connected?
44. Applications of this machine?
45. Is the machine durable?
46. Is the machine affordable?
47. Is the machine portable?
48. What is the use of washer?
49. Can two bolt with stand the whole machine weight?
50. Why we need to cover our motor?
51. Why self lubricated bearing is used?
52. Why we should not oil the parts?
53. What happens if we vessel made up of GI or other materials?
54. How can we adjust the distance between motor and vertical cylindrical rod?
55. Can we adjust distance between motor and vertical cylindrical rod?
56. What is the type of bearing used?
57. What is the material of stirrers?
58. What is the material of scrapers?
59. How spillage is reduced?
60. Can the vessel be tapered?



61. How much time we can save by using this machine?
62. Does any training required to use this machine?
63. Can this machine be used by unskilled person?
64. Can we use this for house hold purpose?
65. Can we use induction heating?
66. Can we use LPG gas?
67. Why should the vessel be tapered?
68. How vessel is fixed to stove?
69. Why there is a slot in V base?
70. How overturning of machine is solved?
71. Can vessel be fixed to stove?
72. Do we need to cover our motor?
73. Can we use any other type of bearings?
74. Can threading is done on scrappers?
75. Why do we need a capacitor?
76. Why we need low rotational speed?
77. Can we save time by using this machine?
78. What is the shape of vessel?
79. Can we use any other shape?
80. Do the machines consume more electricity?
81. What is the capacity of this machine?
82. Can the machine run on fuel?
83. Which fuel can be used to run the machine?
84. Is the machine time taking?
85. Is the machine is to use?
86. Do we need assistance to run the machine?
87. Can the machine produce a large amount of result?
88. Is the machine eco friendly?
89. At what rpm does the machine's stirring rod rotate?
90. What is the approximate weight of the machine?
91. Is the vessel corrosion resistance?
92. What type of supply ac or dc is used?

93. Is the machine easy to install?
94. Is the machine easy to dismantle?
95. How much space does the machine require?
96. How much is the maintenance cost of the machine?
97. How frequently does the machine require maintenance?
98. Why we should not oil the parts?
99. Can threading is done on scrappers?
100. Why gear box is used?



# RAILWAY REFUGEE SYSTEM

1. What is electronics?
2. What is a resistor?
3. What is circuit?
4. Colour code of a resistor
5. Components of this project.
6. RPM of motors.
7. No. of ultrasonic sensors.
8. What is capacitor?
9. Use of capacitor in electronics.
10. What is capacitance .
11. Basic components in electronics .
13. What is Arduino.
14. What is microphone ?
15. Use of ultrasonic sensors
16. What is relay ?
17. Use of relay
18. No. of linear gears used.
19. Relay design.
20. Operation of ultra sonic sensors in this project .
21. Operation of buzzer in this project.
22. What is LDR ?
23. What is transformer ?
24. What is a transistor ?
25. Terminals of transistor.
26. What is voltage?
27. What is the function of dc motor ?
28. What is LED ?
29. Few sensors used in electronic circuits .
30. What is Ultrasonic sensor?
31. Working of IR sensor
32. What is current?
33. What is semiconductor?
34. How many basic types of resistors exist?
35. Why we should use Arduino?
36. What are the advantages of Arduino
37. Opportunities of railway refugee system.
38. What is Insulator?
39. What are Good Insulators?
40. How Insulators can be used?
41. What is Diode?
42. How Diodes can be used?
43. What are the applications of diodes?
44. What is use of the capacitors
45. What is switch?
46. How many round gears are used?
47. What are the Basic forms of Energy?
48. What is Ohm's Law?
49. Power is defined as?
50. What is the most commonly used conductor in Electricity?
51. What are the sensors used?
52. What is the Resistivity of Copper?
53. What happens to Current and Resistance if the Voltage Doubles?
54. How is power dissipated in a resistor?
55. How many basic types of resistors exist?
56. What type of resistors has a tolerance rating of 5% or greater?
57. Applications of this project?
58. How does ultrasonic sensor works ?
59. What is the brain of this project ?
60. What is use of ultrasonic sensor in this project ?
61. Power is measured in units of
62. If resistance decreases, then current will



63. Which formula shows a direct proportionality between power and voltage?
64. How many connections does a potentiometer have?
65. How is a 3.9 k $\Omega$  resistor color-coded?
66. What is Semi-conductor?
67. Where Semi-conductors can be used?
68. What are the applications of Semi-conductors?
69. What is Rectifier?
70. Where can we use rectifiers?
71. What are different types of dc motors available
72. Why did we 60 rpm dc motors
73. How power supply is given to circuit?
74. How power supply we need for this project?
75. What is motor driver?
76. How to choose a right motor driver?
77. What are different motor drivers or controllers?
78. Where is L293D used?
79. Where is L298N used?
80. What is IR sensor?
81. What is use of Infrared sensor?
82. How many pins does IR sensor module has
83. Why we use Ultrasonic than Infrared sensor?
84. How pins does ultra-sonic sensor has?
85. What is buzzer?
86. How buzzers works?
87. What type of buzzer is used?
88. What are different types of Arduino?
89. What type of arduino used in the project?
90. How much voltage does arduino uno needs
91. How many pins does arduino uno has?
92. What is push button?
93. What are different types of batteries available?

94. If a metallic conductor has a positive temperature coefficient of resistance, then?
95. What resistor type is found in SIPs and DIPs?
96. One advantage of a carbon film resistor over a carbon composition resistor is?
97. Which type of test equipment is used to measure resistors?
98. The unit designator for resistance value is the:
99. Wire wound resistors are usually used in circuits that have
100. What is the purpose of tolerance on a resistor?



## MIRROR PI

1. How to compost at home?
2. How many ways are there to compost?
3. What is the aim of the project?
4. What is the definition of composting?
5. How is compost made?
6. What to compost?
7. What should I compost?
8. What is the basic method of composting?
9. What not to compost? Why.
10. What are the benefits of composting?
11. What are the planning tips for composting at home?
12. What are the storage tips for composting at home?
13. Do I need a bin to make compost?
14. What is the best place to put a compost pile?
15. What is easiest way to compose?
16. Can I compost in winter?
17. When is compose finished and safe to use?
18. Do I need to be sterilized or screened?
19. Do I need to fertilize if used to compost?
20. What if I make much to compost?
21. What if the pile has an odour?
22. Should I wear gloves to handle compost?
23. How can kitchen wastes be stored for later composting?
24. Should I add group of soil or fertilizer?
25. What if the compost pile doesn't heat up?
26. How do I compost with too many high carbon materials?
27. Which soil should be added to composting?
28. Which soil should be added to composting?
29. What are the ingredients required?
30. How many days are needed to compost at home?
31. What are the benefits of reducing wasted at home?
32. What are the ways to reduce wasted food?
33. What planning tips are for reducing of wasted food?
34. What the storage tips are for reducing of wasted food?
35. What are prep tips?
36. What are thriftiness tips?
37. What are the benefits of recycling waste materials?
38. How to make compost from kitchen waste?
39. How long does it take to make compost?
40. When is compost finished and ready to use?
41. What should I add to compost and what should I avoid?
42. How do I get started? I haven't made compost before.
43. Can I compost all year round?
44. What should I do in winter?
45. My compost smells bad, what should I do?
46. My compost pile is just sitting there & nothing seems to be happening. What should I do?
47. Can pine needles be composted? Rose pruning? Holly leaves? Rhododendron leaves?
48. How to determine compost mixture?
49. How to make compost a pile?
50. How and when to add finished compost to your garden?
51. How can I tell if my compost is ready to use?
52. What are good composing ingredients?
53. What is compost "Tumbler"?
54. What is Indoor "Vermi" (Worm) compost bins?
55. What is worm composting bin?
56. What is meant by homemade composting bins?
57. Which soil is used for composting?
58. How to use compost in our garden & yard?
59. What is meant by ashes?
60. Can you compost ashes?





61. What should be compost bin moisture level?
62. How to compost raw materials?
63. Why shouldn't organic material wastes go to landfill?
64. How large an area do you need to get finished compost?
65. Do I need to add fertilizer to my garden if I use compost?
66. How does compost effect the pH(acidity) of soils?
67. Will I have too much compost?
68. Can you recycle all your yard waste?
69. What can I do with all my composted grass clipping if I have a large garden?
70. What are the storage needs for composting in average yard
71. What can be done about a smelly pile?
72. Is it ok to garden in pure compost?
73. Is compost mixed with fill soil?
74. Do compost piles attract slugs?
75. How can I stop flies and another insects from becoming pests around the compost pile?
76. Can vacuum dust be composted?
77. Can yard wastes treat with chemical pesticides and herbicides to be put in compost? What happens to these in compost pile?
78. Can pet wastes be added to home from newspaper be compost?
79. Can fireplace and barbecue ash be used in compost?
80. Can any diseased plant be safely composted?
81. Can weeds be composted?
82. How do you know when you have the proper 30:1 Carbon to Nitrogen ratio (C-N) for fast composting?
83. How can wood or bark chips be used in compost?
84. Can wood chips be used in compost?
85. Can sawdust and wood shavings be used in compost?
86. Will mulching with wood chips or sawdust rob nitrogen from plants?
87. How do you gauge the proper moisture content for composting?
88. Do I need water to compost my pile?
89. Should compost piles be covered?
90. Do I need to use a shredder to make good compost?
91. How can compost reheated? Will nitrogen fertilizer help?
92. Should limestone to be added to compost?
93. Can grass clippings be composted alone without becoming matted and smelly?
94. Why can't dairy products, meat and fish scrap be composted?
95. Can coffee filters and teabags be composted?
96. Are bugs in my worm box OK?
97. Should sod be composted separately?
98. What tools can be used to chip woody wastes? How do you know what size to use?
99. Should compost "starters" or soil be added to compost piles?
100. Can limbs from trees with tent caterpillars be composted?





## NOISE HARVESTING HUB

1. Why do we need to do this project?
2. In general Use of project?
3. What will we get by this project?
4. What is the main aim of this project?
5. In general which process is used in this project?
6. What is the title of the project?
7. Why we suggest that name?
8. What is a Dosa maker?
9. What is product?
10. What is non-sticky?
11. Which materials used for Dosa Maker?
12. What is stainless steel?
13. How Dosa maker works?
14. What is a wing?
15. Main purpose of Dosa maker?
16. What is meant by electricity?
17. What is current?
18. What is power?
19. What is voltage?
20. What is frequency?
21. What are the units of voltage?
22. What are the units of frequency?
23. Difference between voltage & frequency?
24. What are the units of power?
25. What are the electricity units?
26. Which sources are available for dosa maker?
27. What is heat source?
28. What is temperature?
29. What are the units of temperature?
30. How temperature controls?
31. What is thermostat?
32. What is sensor?
33. How heat is produced?
34. Application of this project?
35. What are the future benefits of this project?
36. Advantage of this project?
37. Where we are using this project?
38. Cost of the project?
39. What is a consumer cost?
40. What is meant by dc current & dc voltage?
41. What is meant by ac current & ac voltage?
42. Which principle is involved in this project?
43. Which method is developed?
44. What is mechanism?
45. Which mechanism is used?
46. What is involute slider mechanism?
47. What is four slotted mechanism?
48. What is slider?
49. What is slotted?
50. Difference between the slider & slotted?
51. Difference between the involute & four slotted mechanism?
52. What is flour?
53. How much quantity of water is used?
54. What is batter mass?
55. How batter mass prepared?
56. How much time to take to prepare batter?
57. What is batter?
58. Where batter is placed?
59. What is lower plate?
60. What is upper plate?
61. What is plate?
62. Difference between upper & lower plate?



63. Where plates are placed?
64. What is machine?
65. What is input of this project?
66. What is output of this project?
67. What is tube?
68. How batter is prepared?
69. What is transferring process?
70. What are slider wings?
71. What is shape of dosa maker?
72. What is size of dosa maker?
73. What is the weight of dosa maker?
74. How much time to take prepare to the dosa?
75. What is automatic?
76. What is instant cooking?
77. What is the shape of dosa?
78. What is the meant by manual work?
79. Difference between manual & automatic work?



## SMART HELMET (SHELMET)

1. What is the size of 8051 micro controller?
2. Why intel8051 is called a 8-bit microcontroller?
3. What is a 16 bit microcontroller?
4. What is 8-bit micro controller
5. What is the use of bit addressable memory in microcontroller 8051?
6. What are the features of 8051?
7. Why is it called a microcontroller?
8. What is microcontroller 8051 definition?
9. What is microcontroller 8051 definition?
10. What is internal size of Rom in 8051?
11. What is stack in 8051?
12. What do you mean by 8 bit microcontroller?
13. What is bit addressable?
14. What is internal size of Rom in 8051?
15. How many 16 bit registers are available in 8051?
16. What is size of RAM and ROM in 8051 microcontroller?
17. What is the use of PIC microcontroller?
18. What is the use of timers in microcontrollers?
19. Why do we use 11.0592 Mhz in 8051?
20. Is the Arduino a microcontroller?
21. How does a microcontroller work?
22. What is microcontroller programming?
23. What would a relay be used for?
24. What a relay is used for?
25. How do you test a relay?
26. What is the difference between a circuit breaker and a relay?
27. Is a transistor the same as a relay?
28. What is a relay switch on a car?
29. What is the difference between a relay and a contactor?
30. What is a reset relay?
31. What is the power supply?
32. What are the different types of power supply?
33. What is the main purpose of the power supply?
34. How does the power supply work?
35. How many bit data bus does 8051 has?
36. The 8-bit address bus allows access to an address range of?
37. The number of data registers is?
38. The I/O port that does not have a dual-purpose role is?
39. To interface external EPROM memory for applications, it is necessary to demultiplex the \_\_\_\_\_ lines of the 8051.
40. A \_\_\_\_\_ is used to name a single line of code.
41. Device pins XTAL1 and XTAL2 for the 8051 are used for connections to -----
42. 8051 has \_\_\_\_\_ bit program counter.
43. When the 8051 is reset and the  $\overline{EA}$  line is HIGH, the program counter points to the first program instruction in the
44. Why a capacitor is used in Project?
45. Why a diode is used in Project.
46. Why a transistor is used in Project.
47. Why a Integrated circuit (IC) is used in Project.
48. Why a transformer is used in Project.
49. Why a regulator IC (7805) is used in Project.
50. Why a relay is used in Project.
51. Define resistor.
52. Define capacitor.
53. Define inductor.
54. Define diode.
55. What are the different types of power supply?
56. What is AC or DC power supply?
57. What is AC or DC power?
58. The device used to convert AC to DC is?



59. Type of rectifier used in Power supply is?
60. Type of Filter used in Power supply?
61. Electrical equipment is protected against excessive current by an
62. Ohms law equation?
63. For  $P = V^2/R$ , a decrease in resistance should produce?
64. 8051 is ---bit controller?
65. Number of timers in 8051?
66. the size of timers in 8051
67. In which mode timer acts as Auto-reload
68. In serial communication no. of bits transmitted per second is called
69. Maximum memory supported by 8051 is
70. N-type extrinsic semiconductor is obtained by adding
71. When Semiconductor materials is heated its resistance
72. The majority carrier in P-type extrinsic semiconductor material is
73. 8051 microcontroller operating voltage
74. The size of ALU in 8051 is
75. ALU stands for?
76. In 8051 which port don't have pull up logic
77. In 8051 Special functions are present in which port
78. Why a relay is used in Project.
79. The I/O ports that are used as address and data for external memory are?
80. The 8051 has how many parallel I/O ports?
81. The total external data memory that can be interfaced to the 8051 is?
82. The statement LCALL READ passes control to the line labelled
83. 8051 has \_\_\_ I/O pins?
84. What is microcontroller 8051 definition?
85. What is the difference between a relay and a contactor?
86. What a relay is used for?

87. Z flag is ----- if an ALU operation results in 0. ?
88. The power requirements of a DRAM in active and stand by modes are about?
89. In a computer the instructions, data, intermediate and final results during processing are held in ALU?
90. Why a relay is used in Project.
91. How many bit data bus does 8051 has?
92. Why a relay is used in Project.
93. Define resistor.
94. What is a diode and what is it used for?
95. How do you test a diode?
96. What is the use of a diode in a circuit?
97. How does the diode work?
98. How can we use diode as a switch?



## CORN USED AS BIO-FUEL

1. According to EPA of USA, the following is not one of the six major pollutants?
2. The Pollution Standard Index (PSI) scale has span from
3. Which of the following is an organic gas?
4. Which of the following is/are inorganic gas (es)?
5. The major contributor of Carbon monoxide is
6. Fugitive emissions consist of
7. Ozone of found in
8. Ozone is formed in the upper atmosphere by a photochemical reaction with
9. The principal source of volatile organics (Hydrocarbons) is
10. The function of automobile catalytic converter is to control emissions of
11. The list of industrial sources of air pollution and their emissions are given. Match the following.  
A. Ammonia    1. Carbon monoxide  
B. Plating    2. Particulates  
C. Fertilizers    3. Metal fumes  
The correct order is
12. The threshold concentration of sulphur dioxide in any industrial activity should not be permitted beyond
13. The threshold limit of benzene is
14. Which of the following is used as antiknock compound in gasoline?
15. Which of the following is a fermentation product of molasses?
16. The boiler flue gas is source of
17. What is the project?
18. What are the basic components required for a Project.
19. What are the Input devices?
20. What are the output devices?

21. What are the various hardware boards?
22. List the electronic components or devices?
23. What the devices used in any project.
24. Why a resistor is used in Project.
25. Why a capacitor is used in Project.
26. Why a diode is used in Project.
27. Why a transistor is used in Project.
28. Why an Integrated circuit (IC) is used in Project.
29. Why a transformer is used in Project.
30. Why a regulator IC (7805) is used in Project.
31. Why a relay is used in Project.
32. Discuss about various sensors.
33. Discuss various types of resistors.
34. What is difference between AC and DC voltages?
35. How a resistor value is identified.
36. What is colour code for 1k Ohm?
37. What is colour code for 220 Ohm?
38. If 60 J of energy are available for every 15 C of charge, what is the voltage?
39. An atom's atomic number is determined by the number of.
40. Voltage will influence current only if the circuit is:
41. List the latest technology modules.
42. Discuss about MQ135 Sensor.
43. What components used in your project.
44. What is need of Wi-Fi module.
45. Discuss about arduino Uno board.
46. What is importance of Arduino board?
47. What an arduino board consists.
48. Where did you get this idea?
49. What is an IOT?
50. What are the difference between software and hardware?



## AEROPHONICS- A NEW WAY OF AGRICULTURE

1. What are the three essential components for the survival of a plant?
2. Can a plant survive without soil?
3. Can a plant survive without water?
4. Can a plant survive without light?
5. Can a plant survive without air?
6. What is Aeroponics?
7. What is hydroponics?
8. Are Aeroponically produced plant any different?
9. Does photosynthesis take place with Aeroponically produced plants?
10. Are Aeroponically produced plants colourless like air?
11. What is mist?
12. What are components used in Aeroponics?
13. Should Aeroponics be practised in open space or under laboratory conditions?
14. Should the mist be continuously sprayed?
15. Which type of pumps are favourable ?
16. Are the plants all weather ready?
17. Does air required, be of any different composition?
18. Is it resilient to hard touches?
19. Can it be grown on fabricated clothes?
20. Where can it be practised more?
21. What was the international agency that funded for these studies?
22. How long is a feed cycle?
23. For what duration is a pause maintained in between successive feed cycles?
24. Is it user friendly?
25. Is it cost effective?
26. Does Aeroponics have a greater control over the stock?
27. Is the mist high on nutrient level?
28. Who was the first to biologically produce the Aeroponic plant in laboratory?
29. In what year was it first produced?
30. Who was the first to bring out a successful practise of a plant be grown Aeroponically?
31. In what year was it discovered?
32. How does it manage to stop spreading diseases to other plant?
33. Does it help with air rooted transplant?
34. Can plants be grown in space?
35. Can plants be grown on different planets?
36. How much volume is typically sprayed in a feed cycle?
37. Does this help in good seed stock?
38. Do we need agriculturists to grow this?
39. Does this reduce agricultural farmers?
40. Can they act as natural urban air purifiers?
41. Number of general purpose registers :
42. GSM is abbreviated as:
43. GSM requires \_\_\_ to activate communication with network.
44. Frequency range of Infrared\_\_\_\_\_.
45. LCD stands for\_\_\_\_\_.
46. Processor Status Word (PSW) of 8051 has\_\_\_bits.
47. The devices that provide the means for a computer to communicate with the user or other computers are referred to as:
48. The special function registers are maintained in the next 128 locations after the general-purpose data storage and\_\_\_\_\_.
49. \_\_\_\_\_often have CPU, RAM and ROM.
50. Write the instruction to move the contents of register 3 to the accumulator?
51. 8051 follows which architecture? Harvard Architecture
52. What is the width of data bus?





53. What is the width of address bus?
54. How much total external data memory that can be interfaced to the 8051?
55. How many input output lines 8051 has\_?
56. On-chip RAM is also called \_\_\_\_\_ memory?
57. How Much on chip RAM is available?
58. 8051 micro controller is \_\_\_\_\_pin IC?
59. GSM stands for\_\_\_\_\_?
60. ----- can be accessed only sequentially?
61. MICR stands for-----?
62. 8085 has --- sign flags. ?
63. IC (instruction cycle), FC (fetch cycle) and EC (executive cycle) are related as-----?
64. The size of cache memory in most microcomputers is about -----?--?
65. ----- Computer memories is fastest?
66. During processing the instructions, data, intermediate results and final results in a computer are held in-----?
67. Z flag is ----- if an ALU operation results in 0. ?
68. The power requirements of a DRAM in active and stand by modes is about -----?
69. In a computer the instructions, data, intermediate and final results during processing are held in ALU.
70. The interface chip for 8086 and 16 bit ADC is -----?
71. The noise generated by a resistor depends upon-----?
72. In a super heterodyne receiver the ----- has better selectivity than RF stage?
73. The function of an AM detector circuit is to -----?
74. Most popular IF for receivers tuning to 540 to 1650 kHz is-----?
75. -----has volatile memory?
76. In a broadcast ----- receiver mixer input must be tuned to the signal frequency?
77. A heterodyne frequency changer is called a -----?
78. PIR Sensor is abbreviated as -----?
79. A 256 x 4 EPROM has-----?
80. A Robot is a\_\_\_\_\_?
81. Drives are also known as\_\_\_\_\_?
82. List different types of passive components
83. List different types of active components
84. Define resistor.
85. Define capacitor.
86. Define inductor.
87. Define diode.
88. Diode allows electric current when it is \_\_\_\_\_?
89. Diode blocks electric current when it is \_\_\_\_\_?
90. Define transistor.
91. Who invented transistor.
92. Which types of materials are used to construct transistors?
93. Define integrated circuit (IC)
94. Who invented integrated circuit?
95. What is Oscillator?
96. What is an Integrated Circuit?
97. What is resistor?
98. What is inductor?
99. What is conductor?
100. What is a semi-conductor?





# JAL RAKSHAN-A TRADITIONAL WAY TO CONSERVE WATER

1. What is the aim of the project?
2. Why did we choose this project?
3. What are the advantages of the project?
4. What are the disadvantages?
5. Where it can be implemented?
6. What is water conservation?
7. What is the procedure if the project?
8. Which type of water is conserved and how?
9. What are the materials used in this project?
10. What quantity of water can be conserved?
11. Why do we choose this materials?
12. What is the cost of the materials?
13. What are the different ways to conserve water?
14. How the water is conserved in the ancient days?
15. How the water sink into the ground?
16. What is the design of the project?
17. Is this, the effective way to conserve water?
18. How the model will be prepared?
19. How much space is required for the implementation?
20. How do we cover the holes in the drain?
21. Can we implement this at houses?
22. How much time does it take's to sink the water into the water?
23. What the different types of soils used in this project?
24. What is the diameter of the whole?
25. What is the depth of the whole?
26. Why do we use spiral well among the different ancient ways of water conservation methods?
27. What is the thickness of the sheets used?
28. What is the length of the pipe?
29. Why don't we use other materials in preparing the model?
30. How the purification of the waste water is done?
31. What are the materials that are used in the purification?
32. Is this project really help the society?
33. What is the percentage of water present in the ground?
34. What is the amount of water used by an individual?
35. Among the water used by the individual how much amount of water is wasted?
36. Do we have any alternate and effective ways of storing water?
37. What is a mesh?
38. Why should we use a mesh?
39. How the waste on the mesh will be cleaned?
40. How the mesh is fixed on the holes?
41. Does the mesh bare the flow of the water and wastes in the drainage systems?
42. What is the mesh materials used?
43. What is the cost of the materials used in the project?
44. What is the duration of the project?
45. How do we cover the holes?
46. What is the purpose of mesh?
47. How to clean sludge formed?
48. Is it harmful to the environment?
49. Is the mesh permanently fixed on the holes?
50. How do we cover the spiral wells?
51. What is the depth of the spiral wells?
52. What is the life of the mesh?
53. What is the cost of installation for the domestic purpose?
54. What is the difference between the sump wells and the project?
55. Does the water is safe for daily usage?
56. Why do we prefer this materials for the project?
57. Is additional purification is required in this process?



58. Does this project is installed easily in every house?
59. Is this method of conservation is easy?
60. Does this process have any effect on the mankind and other creatures?
61. Can we overcome the scarcity of water by the implementation of the project?
62. How the system is maintained during rainy season and in flood conditions?
63. Why do we use the traditional method to conserve water?
64. Do we have any use of growing plants and grassland in this process of conservation?
65. Is there any alternative ways of covering the holes?
66. Is there any possibility of pungent smell?
67. How can we reduce the odour of the waste that gets accumulated on the mesh?
68. Does the waste water have any effect on the soil fertility?
69. Does the whole amount of water is purified?
70. Can we adopt this project in forest and hilly areas?
71. Does this project works?
72. How much percentage of water can be conserved?
73. What is the scope of the project?
74. What is new in this project?
75. What are the major cities facing the issue of facing water scarcity?
76. What are the reasons for the reduction of underground water levels?
77. Is the design is same for all type of the lands?
78. Does the process of conservation is complicated?
79. Does this project is tested before?
80. Is there any projects related to the present one?
81. What are the main reasons for water scarcity?
82. What is the amount of water consumed by an individual everyday?
83. Can we reduce the water scarcity of water by using the sea water?
84. Is there any other possible method to reduce water scarcity?
85. Is there any other possible methods of covering the spiral wells?
86. Does this process involves any chemical reactions in purification of water?
87. What is the diameter of the holes?
88. What is the depth of the holes?
89. How do we present the model of the project?
90. Is it necessary to add any chemicals for the purification?
91. Why we use sand and gravel and sand in this project?
92. Why don't we use other materials to represent the different layers?
93. Does the temperature of the earth's crust helps in purification of water?
94. Is there any disadvantages with this project?
95. How can we overcome the disadvantages?
96. Can we adopt this method in all localities?
97. Does this method reduces the soil fertility?
98. How can we improve the water bodies?
99. Is it possible to improve underground water levels?
100. Is this process really helps in the real life?



# PERVIOUS CONCRETE PAVEMENT

1. What is pervious concrete?
2. Why the concrete is porous?
3. How does the pervious concrete pavement differ from conventional concrete?
4. What are the materials used in pervious concrete?
5. What is meant by specific gravity?
6. What is meant by void ratio ?
7. What is the allowable limit of void percentage in pervious concrete?
8. What is meant by mix design?
9. Which mix design is generally used for pervious concrete?
10. Which mix design is adopted in this project?
11. What is meant by fine aggregate?
12. What is meant by coarse aggregate?
14. What are the various sizes of coarse aggregates?
15. What is the size of coarse aggregate used in this project?
16. Why 10mm size coarse aggregate is not used in this project?
17. Why fine aggregate is not used in pervious concrete?
18. What is water-cement ratio?
19. What is the allowable limit of water-cement ratio for pervious concrete?
20. How much water-cement ratio is adopted in this project? Why?
21. What happens if water-cement ratio is too high or too low?
22. Based on shape, which type of aggregate is suitable to use in pervious concrete?
23. What is meant by compressive strength?
24. What is the allowable limit of compressive strength for pervious concrete?
25. How to measure compressive strength of pervious concrete?
26. What is meant by flexural strength?
27. What is the allowable limit of flexural strength for pervious concrete?
28. How to measure flexural strength?
29. What is meant by density?
30. What are admixtures?
31. Why admixtures are used in concrete?
32. What are cementitious materials?
33. Why flyash is used ?
34. What happens if flyash replacement percentage is high?
35. Why waste tyre rubber is replaced partially?
36. What happens if replacement percentage of tyre rubber is high?
37. What is meant by grade of cement?
38. Which grade cement is used in this project?
39. What is meant by compaction?
40. What happens if compaction effort is too high for pervious concrete?
41. What type of compaction(i.e., manual or vibration) is suitable for pervious concrete?
42. What is infiltration?
43. Should we study about infiltration for design of pervious concrete pavement?
44. What is percolation?
45. What is ground water recharge?
46. What is storm water management?
47. What is runoff?
48. Why should we study about runoff for design of pervious pavement?
49. What is the difference between pervious layer and impervious layer?
50. What is meant by strength?
51. What is mean by void structure?



52. What is durability?
53. What is permeability?
54. What is base course?
55. What is sub base?
56. What is sub grade?
57. What is discharging time of pervious concrete?
58. How to increase the discharging time?
59. What are the methods involved in construction of pervious pavement?
60. What is hydraulic design?
61. What is structural design?
62. What is nothing but subgrade and subbase preparation?
63. What is batching and mixing?
64. What is transportation of concrete and what are the precautions to be taken during transportation?
65. What is nothing but joint placement in pavements?
66. Why joints are placed in concrete pavements?
67. What is curing and why curing is important?
68. What is nothing but quality control?
69. What is meant by strike off?
70. What is random cracking and reflective cracking?
71. What is the minimum thickness of pervious concrete pavement?
72. What is shrinkage?
73. What is specific gravity?
74. What is setting time?
75. What is nothing but surface water loss in pervious concrete pavement?
76. Why the subgrade must be moistened before placing of concrete?
77. What is fog moisting?
78. Why plastic sheeting is used for curing in pervious concrete pavement?
79. What is the curing period for pervious concrete pavements?
80. What is nothing but pavement thickness and how it is determined?
81. On what factors, the thickness of pervious concrete pavement depends?
82. Why soil properties are important for pervious concrete pavement design?
83. Why should we study permeability and storage capacity for design of pervious concrete pavement?
84. Why rainfall data is important for design of pervious concrete pavement?
85. What are the factors to be considered for design of pervious concrete pavement?
86. What are engineering properties?
87. Explain about engineering properties of pervious concrete?
88. What is abrasion?
89. What is ravelling?
90. What happens to oil that drips on pervious concrete pavement?
91. What about drainage issues in soils with high clay content?
92. What is free-thaw?
93. How to control free-thaw issues?
94. What is clogging ? and how to prevent clogging in pervious pavements?
95. What is meant by vaccuming and pressure washing?
96. What is meant by inspection and maintainance?
97. What are the applications of pervious concrete pavement?
98. What is meant by slump?
99. What is the allowable limit of compressive strength for pervious concrete?
100. What is the allowable limit of flexural strength for pervious concrete?



## PLASTIC BRICKS & PAVING BLOCKS MADE BY WASTE PLASTIC

1. What are paving blocks?
2. What are the materials used in the brick?
3. How the brick is made?
4. What are the dimensions of the brick?
5. Why we use these bricks?
6. What are the properties that may differ this bricks by conventional bricks?
7. What type of plastic is used?
8. Are all types of plastics are suitable for the manufacture of the bricks?
9. What is a brick?
10. Is there are any different dimensions of bricks are there?
11. What is meant by frog?
12. What is the purpose of frog?
13. Why should we provide frog for a brick?
14. How plastic is made?
15. What are the raw materials of making plastic?
16. What are the raw materials for plastic brick?
17. What is meant by strength?
18. How the strength can be determined for a brick?
19. What are the different types of plastics?
20. What is the full form of LDPE?
21. What is the full form of HDPE?
22. What is the difference between LDPE and HDPE?
23. Are plastics harmful?
24. What is meant by melting point?
25. What is the melting point of LDPE?
26. What are the constituents present in sand?
27. What is the role of plastic in plastic bricks?
28. Which type of plastic we were using?
29. What is Fly ash?
30. How fly ash can be obtained?
31. What is the composition of plastic bricks?
32. What is the thickness of the paving block?
33. What is the compressive strength of the brick?
34. What are the various tests made on bricks?
35. What is the time required to manufacture one
36. Price of Brick?
37. What is the purpose of using oil for making brick?
38. What is header?
39. What is footer?
40. What is stretcher?
41. What are the different types of bonds?
42. What is meant by hollow brick?
43. What are the dimensions of hollow brick?
44. How the hollow bricks are made?
45. What are the advantages of hollow bricks?
46. How the conventional bricks are prepared?
47. Why we are using Fly ash?
48. In what ratio the fly ash and plastic are to be mixed?
49. How the plastic bricks are made?
50. What is mortar?
51. What is English bond?
52. What is Flemish bond?
53. Are the bricks fire resistant?
54. What do you meant by masonry?
55. What is efflorescence test?
56. What is the boiling point of plastic?
57. Why we choose plastic for making bricks?
58. Are gases from burning plastic are harmful?





59. How can we prevent the toxic gases?
60. What is Density?
61. What is the density of the brick?
62. What is the weight of the brick?
63. How can we reduce the use of sand?
64. What is compressive strength?
65. How to increase the tensile strength of plastic bricks?
66. How to make a plastic brick fire resistant?
67. How to make a brick more portable?
68. How to reduce the raw materials during the manufacturing of brick?
69. How to make use of broken bricks?
70. Can a plastic brick be used in construction of heavy structure s?
71. Can the plastic bricks be much more water resistant than plastic bricks?
72. How long does it take time to manufacture of brick?
73. Can plastic bricks form better bond with mortar?
74. Is it necessary to provide a frog in plastic bricks?
75. What kind of machinery is used in making plastic brick?
76. What is the price comparison between normal brick and plastic bricks?
77. What happens if we insert plastic bricks in water for a day?
78. How does it react when it react with salt water?
79. Does more percentage of plastic effect the quality of brick?
80. Can plastic bricks be used for water retaining structures?
81. Can a plastic brick be used for constructing a strong wall?
82. Can change in Climatic conditions effect the properties of brick?
83. Is it more economical than normal bricks?
84. What is the strength difference between both normal and plastic bricks?
85. What are the raw materials used in the preparation of brick?
86. What happens when a plastic brick is exposed to fire?
87. What is the composition of flyash?
88. Can any new material be used in the place of flyash?
89. Does flyash and plastic form a good bond?
90. What is the composition of engine oil?
91. How much time a plastic brick take to harden completely.
92. Explain the steps involved in manufacturing of plastic brick?
93. How does the excess amount of fly-ash effect the brick?
94. How does the excess amount of engine oil effect the brick?
95. What is the cost of plastic brick in market?
96. How does the excess amount of plastic affect the plastic brick?
97. Can a plastic brick be easily breaked than normal brick?
98. What is the required heat to make a plastic brick?
99. Can plastic brick be a competent to normal brick?
100. How much percent of plastic be used in plastic brick?





# PLASTIC WASTAGE REUSE IN AGRICULTURE AND GARDEN

1. What is agriculture?
2. What is plastic?
3. Why plastic used project?
4. What are parts involved in fitting in water fountain board?
5. What is application of plastic?
6. What is self-watering system?
7. What are advantages of plastic garden?
8. What are disadvantages of plastic garden?
9. What Basic application of plastic?
10. What is the use of plastic?
11. What is the use of waste bottle?
12. What is waste?
13. What are the required Components?
14. What is recycling?
15. How much the Number of waste bottles we can used?
16. What is fountain Design?
17. What is use of waste bottle?
18. Operation of self watering system Project?
19. Operation of water recycling Project?
20. What is vegetable garden?
21. What is curry leaves?
22. What is medical waste?
23. What are terminals of Transistors?
24. What is Voltage?
25. What is the function of saline bottle?
26. What is drip system?
27. What are the materials used?
28. What is interior green house?
29. What is the work of cotton roof self watering?
30. What is plastic garden?
31. What is water fountain?
32. Number of Resistors used in Clap Switch?
33. Difference between surface and sub-surface?
34. Applications of this project?
35. Reasons for placing of plastic in project?
36. What is the wastage?
37. How do we design water fountain?
38. Which formula shows a direct proportionality between water fountains?
39. What is application of interior green building?
40. How we can use plastic in agriculture?
41. What is agriculture?
42. What are the two major categories for agriculture garden?
43. How many connections to water in gardens?
44. What are the Basic forms greenery?
45. What is green house ?
46. Plastic house is defined as?
47. What is the most commonly green house interior?
48. With Ohm's law, no change in resistance means that current and voltage will be?
49. How much cost to take complete work?
50. What is the working procedure of self watering?
51. What happens plastic increase in earth?
52. Effects of plastic waste?
53. How can we reduce?
54. What is plastic garden:
55. Water is measured units of water:



56. Explain types of plastic garden?
57. How much space required for this project:
58. Where it is suitable?
59. Required skill labour for this?
60. How much time takes to complete work?
61. Where is it available more plastic?
62. How we can reduce?
63. What are the side effects of health food using plastic?
64. What type of diseases caused by using plastic?
65. Which type of cancer occurred due to plastic?
66. Advantages of interior green building?
67. What are the parts of a green building?
68. What is the theme of project?
69. Which type of cancers occur plastic?
70. How many types of curry leaves can we grow?
71. Which type of test equipment is used for green building?
72. What is green building?
73. If resistance decreases, then current will:
74. A wire with a smaller cross-sectional area will produce?
75. Which type of soil is used for project?
76. The word *work* means that?
77. What are the types of soil?
78. What is clay soil?
79. What is red soil?
80. What are nutrients added?
81. What is the function of interior green building?
82. What are the required components of green building?
83. What is recycling?
84. How many the number of waste bottles can we use?
85. What is fountain design?
86. What is the use of waste bottle?
87. Operation of self-watering system project?
88. Operation of water recycling project?
89. What is a plastic vegetable garden?
90. What are curry leaves?
91. What is medical waste?
92. What are the terminals of transistors?
93. What is voltage?
94. What is the function of a saline bottle?
95. What is a drip system?
96. What are the materials used?
97. What is an interior greenhouse?
98. What is the work of a cotton roof self-watering?
99. What is the theme of project?
100. What is the aim of project?



## **TRAFFIC CONTROLLED BY ELEVATED BEAMS (ROLLERS)**

1. How many no. of bollards are placed according to the road width?
2. How does a bollard works?
3. What is the bearing capacity of bollards?
4. What is durability of bollards?
5. How does bollards installed?
6. How much force does a bollard can bear?
7. What are the types of bollards?
8. What is the weight of bollards?
9. Duration for inspection of bollards?
10. How we transport bollards to site?
11. How bollards are fixed in case of mechanical repair?
12. What are precautions taken while installing the bollards?
13. Why only bollards are to be provided?
14. What is height of the bollards?
15. Which mechanisms used in bollards?
16. What are the precautions for safety?
17. How many ways traffic can be controlled?
18. Maintance of bollards?
19. Did it effect to environment?
20. What is the duration provided to clear the traffic?
21. How much impact load bollards can resist?
22. What are the defects of using bollards?
23. What are advantages of providing bollards?
24. What is a distance between two bollards?
25. What are the uses of bollards?
26. What is a dimension of bollards?
27. How we control traffic by using bollard?
28. What is the cost of project?
29. What is the aim of project?
30. What are the draw backs of project?
31. Why this method used in junctions?
32. Why we use led lights in traffic signals?
33. Why we provide alignment in road lanes?
34. What is width of road?
35. What is alignment?
36. What are the basic functions involved?
37. What is the purpose of white mark on road?
38. What is sensor?
39. What is LED?
40. What is capacitor?
41. What is resistor?
42. What are the uses of sensor?
43. How many lanes of road?
44. What is electronic?
45. How many layers of road will be?
46. Distance between alignment & road?
47. What are the layers of road?
48. At what distances speed breakers are provided?
49. What we are constructed speed breakers?
50. Life span of bollards?
51. Applications of this project?
52. What is Current?
53. What is Semi-conductor?
54. What is Ohm's Law?
55. Power is defined as?
56. What are the sensors used?
57. What is Ultrasonic Sensor?
58. What is Voltage?
59. What is Transistor?



60. What is Switch?
61. Which type of test equipment is used to measure resistors?
62. What is Resistance?
63. The word work means that?
64. How is power dissipated in a resistor?
65. Resistance in a circuit is:
66. What is Insulator?
67. What are Good Insulators?
68. How Insulators can be used?
69. What are the applications of Insulators?
70. What is Diode?
71. How Diodes can be used?
72. What is Electronics?
73. What is Resistor?
74. Why Resistors are colour Coded?
75. What are parts it involves?
76. What is LED?
77. What is Capacitor?
78. What Basic Components of Electronics?
79. What is the use of Resistors?
80. What is the use of Capacitors?
81. What are the applications of diodes?
82. What is Semi-conductor?
83. Where Semi-conductors can be used?
84. What are the applications of Semi-conductors?
85. What is servo motor?
86. What are the uses of servo motor?
87. How servo motor used in project?
88. What is micro controller?
89. How micro controller used in project?
90. What are the uses of micro controller?
91. How the system is operated?
92. Where is the control unit of system?
93. How you can control the traffic?
94. What is mean by intersection?
95. How you can control accidents at intersection point?
96. Why we can use only bollard only?
97. What are the types of bollards?
98. How the connections are connected?
99. What type of wire used in project?
100. How you can monitor the traffic?
101. What are the use of speed brakers?
102. Where you placed speed brakers?
103. How you can control speed of vehicles?
104. What are the precautions required?
105. How you can calculate the traffic?
106. What are the requirements to control traffic?
107. What you will do in emergency cases?
108. How you can divert traffic in emergency conditions?
109. In which season effect the traffic system?
110. What is hydraulic bollard?
111. What is use of bollard?
112. What is the principal of bollard?
113. What is the principal of servo motor?
114. What indicates red led?
115. What indicates green led?
116. What indicates yellow led?
117. What are the methods used in project?
118. What are the objectives in your project?
119. What is Pascal's law?
120. Where you used Pascal's law?



## ECO FRIENDLY HYDROPONICS BUILDING BY USING FREE WATER SUPPLY

1. What is hydroponic?
2. What are neutrants added?
3. Why arduino using
4. What are parts it involved in hydroponic building?
5. What is application of relay?
6. What are the advantages of hydroponics?
7. What are advantages of hydroponic?
8. What are dis advantages of hydroponic?
9. What Basic Components of hydroponic building?
10. What is the use of Capacitors?
11. What is floating?
12. What is the water fountain Components?
13. What is pressure?
14. What is the Number of Threaded rods used?
15. What is fountain?
16. What is use of Recycling?
17. Operation of rain water recycling?
18. Operation of water pumping in this Project?
19. What is recycling?
20. What is garden?
21. What are thermal sheet?
22. What are terminals of Transistors?
23. What is floating?
24. What is the function gauge pressure?
25. What are tree roots?
26. What are floating materials?
27. What is neutrants hydroponics?
28. What is the work of thermacoal sheet?
29. What is aquaponics?
30. What is vaccume pressure?
31. Number of Resistors used in Clap Switch?
32. Difference between surface and sub-surface?
33. Applications of this project?
34. Reasons for placing two-threaded Rods?
35. What is the water fountain?
36. How do we water supplied?
37. What is difference between aquaponic s & hydroponics?
38. What are the losses hydroponics?
39. How is set up water fountain?
40. What types of material we can use?
41. What are the two major categories aquaponics hydroponics?
42. How many connections does a potentiometer have?
43. What are the Basic forms of Energy?
44. What is water supply system?
45. What is building?
46. What is the most commonly used hydroponics?
47. What are the types of pressures?
48. What is energy?
49. What is Hi-tech city s?
50. What is the gauge pressure?
51. What happens to negative pressure low?
52. What happens to negative pressure high?
53. What happens to atmosphere pressure low?
54. What happens to atmosphere pressure high?
55. Use of aquaponics?
56. What is discharge?
57. discharge is measured in units of:





58. what is storage tank ?
59. Function of storage tank?
60. What is harvesting tank?
61. Types of underground storage tanks ?
62. What is waste water?
63. What is run off ?
64. What is rain fall ?
65. Where we can grow hydroponic ?
66. What type hydroponics systems?
67. What is application of recycling of water?
68. How many connections do hydroponics?
69. What are the parts of a water fountain?
70. Where are suitable hydroponics systems?
71. What is Pvc hydroponics
72. How many types we can do pvc hydroponics?
73. Which type of test equipment is used to measure pressure?
74. What is force?
75. If resistance decreases, then current will:
76. What is free energy?
77. Which vegetable good for health?
78. Disadvantages of aquaponics?
79. Which method best hydroponics?
80. Where is available hydroponic installation material?
81. How much cost to take operation hydroponics in 100 sq m?
82. Is possible all areas?
83. What are disadvantages of hydroponics?
84. Is it possible rural areas?
85. After a lamp is turned on, its filament resistance will change to become:
86. Wire wound resistors are usually used in circuits that have:
87. How is power dissipated in a resistor?
88. Resistance in a circuit is:
89. The unit designator for resistance value is the:
90. One ampere of current flowing through one ohm of resistance is equal to:
91. What is vegetable garden?
92. What are Good neutrants hydroponics?
93. How spray chemicals can be used?
94. What are the applications of pvc pipes ?
95. What is Difference between agriculture & hydroponics ?
96. How we can grow hydroponics?
97. Which types of vegetable we can grow?
98. What is the effect s hydroponics?
99. Where is it can be possible?
100. What are the applications of hydroponics?


  
 BUILDING BRIDGES TO DISCOVER
   
 SCIENCE & ENGINEERING FAIR





# ADVANCED SUB SURFACE DRIP IRRIGATION BY MOISTURE CONTROL

1. What is moisture?
2. What is sensor ?
3. Why arduino using?
4. What are parts it involved in fitting in ardino board ?
5. What is application of relay ?
6. What is irrigation?
7. What are advantages of irrigation?
8. What are dis advantages of irrigation?
9. What Basic Components of Electronics?
10. What is the use of Resistors?
11. What is the use of Capacitors?
12. What is Switch?
13. What are the solar Components?
14. What is Relay?
15. What is the Number of Threaded rods used?
16. What is relay Design?
17. What is use of Relay?
18. Operation of Clap Switch in this Project?
19. Operation of laser light in this Project?
20. What is LDR?
21. What is Transformer?
22. What is Transistor?
23. What are terminals of Transistors?
24. What is Voltage?
25. What is the function of DC Motor?
26. What is percolation ?
27. What are the sensors used?
28. What is alarm Sensor?
29. What is the work of moisture sensor?
30. What is drip irrigation?
31. What is mortar?
32. Number of Resistors used in Clap Switch?
33. Difference between surface and sub surface?
34. Applications of this project?
35. Reasons for placing two-threaded Rods?
36. What is the function of sensor?
37. How do we fix ardino ?
38. Which formula shows a direct proportionality between power and voltage?
39. With 1 mA of current, what wattage rating should a 470 ohm resistor have?
40. How is a 3.9 k $\Omega$  resistor color-coded?
41. What resistor type is found in SIPs and DIPs?
42. What are the two major categories for resistors?
43. How many connections does a potentiometer have?
44. What are the Basic forms of Energy?
45. What is Ohm's Law?
46. Power is defined as?
47. What is the most commonly used conductor in Electricity?
48. With Ohm's law, no change in resistance means that current and voltage will be?
49. A potentiometer has how many leads?
50. What is the ratio of 13 to 47 expressed in Percentage?
51. What happens to Current and Resistance if the Voltage Doubles?
52. One problem with mechanically variable resistors is noticeable in alarm ?



53. What is solar energy?
54. A conductor's cross-sectional area in circular mils for  $\frac{1}{2}$  inch is:
55. Power is measured in units of:
56. How many basic types of resistors exist?
57. With a complex circuit, a supply source senses:
58. How many ohms of resistance allows a current of 720  $\mu$  A to flow when 3.6 kV is applied?
59. Which is the most important step utilized when measuring resistors?
60. Components designed to oppose the flow of current are called?
61. How many amps are used by a 100 watt, 120 volt light bulb?
62. The source is 24 volts and the load resistance is 100  $\Omega$ . What is the load current?
63. Resistors are identified as to wattage by?
64. What type of resistors has a tolerance rating of 5% or greater?
65. Resistor tolerance is either printed on the component, or is provided by?
66. How many connections does arduino have?
67. What are the parts of a solar connection?
68. The load resistance increases. How will the load current change?
69. What is the power dissipated by a 1.2 k  $\Omega$  resistor with 12 volts across it?
70. How many joules of energy will a 10 W lamp dissipate in one minute?
71. Which type of test equipment is used to measure resistors?
72. What is Resistance?
73. If resistance decreases, then current will:
74. A wire with a smaller cross-sectional area will produce?
75. A 22-gauge wire will have a diameter in mils of?
76. The word *work* means that?
77. A good fuse will have?
78. What property does an incandescent lamp possess?
79. One advantage of a carbon film resistor over a carbon composition resistor is?
80. If a metallic conductor has a positive temperature coefficient of resistance, then?
81. What value of a  $\pm 5\%$  1.3 k  $\Omega$  resistor as measured by a digital voltmeter would be considered within tolerance?
82. For  $P = V^2/R$ , a decrease in resistance should produce:
83. After a moisture sensor absorbed water what happen?
84. Wire wound resistors are usually used in circuits that have:
85. How is DC motor auto power off ?
86. Resistance in a circuit is:
87. The unit designator for resistance value is the:
88. One ampere of current flowing through one ohm ?
89. What is moisture sensor?
90. What are Good sensors?
91. How can be ardno used?
92. What are the applications of laser ?
93. What is Diode?
94. How Diodes can be used?
95. What are the applications of diodes?
96. What is Semi-conductor?
97. Where Semi-conductors can be used?
98. What are the applications of Semi-conductors?
99. What is Rectifier?
100. Where can we use rectifiers?



## SERVICE AT DOOR STEP

1. How Long Does It Take To Build An App?
2. Who are the targeted customers?
3. What is the income of customers?
4. Have you done the categorization ?
5. Have you finalized the services to be offered?
6. What is the payment terms?
7. What is the mode of payment?
8. What is the minimum bill?
9. Have you interviewed the customers to understand the requirement?
10. Have u created the database of services to be offered?
11. Have you finalized the rates (Fixed, Variable)
12. What is the investment of your business?
13. In which location you want to start your business?
14. How you want to promote the business?
15. How will you impress electricians to register with you?
16. What are the benefits you are offering to the electricians?
17. How you will verify the quality (expertise) of electricians?
18. What are the proofs they need to produce ?
19. What is the type of office you want to setup?
20. What is the rent for the premises?
21. What is the number of admin staff you want to employ?
22. How much commission you are expecting from electrician ?
23. Would you like to add material or the customer has to buy?
24. What is the methods for providing material to electricians?
25. What is the warranty period for the material supplied?
26. How you are going to finalize the shops/agencies for supply of material?
27. How you are ensuring the quality of materials supplied?
28. What is the method of payment to shops/agencies?
29. What are the schemes to attract customers?
30. What is the warranty period offered for the services provided?
31. Time frame for offering the services (I.e. at what time the services are required by the customers)?
32. Would you like to charge extra in emergency cases?
33. Have you finalized the procedure for identification/verification of the electricians?
34. Have you finalized Procedure for closer of work ?
35. Have you finalized the procedure for feedback system?
36. Who are your competitors .Can you mention some of the service providers ?
37. What is the method to create database of electricians ?
38. What is the method of bringing the electricians to this platform?
39. How you are going to settle the disputes?
40. What is the method of transportation you are providing to electricians?
41. Whenever a particular electrician preferred by the customer is not available what is the procedure?
42. Have you develop the user friendly app?
43. What are the special features of the app?
44. What is an app?
45. Where to use an app?
46. What is android?
47. Why to use android?
48. What are the features of android?
49. Are the android releases available in a rom?
50. Can you play android 2.1 games on android 2.2?
51. What is the Google android SDK?
52. What is the android architecture?
53. Describe the android frame work?
54. What is AAPT?



55. What is the importance of having an emulator within the android environment?
56. What is the use of an activity creator?
57. Describe activities?
58. What are intents?
59. Differentiate Activities from services?
60. What items are important in every android project?
61. What is the importance of XML based layouts?
62. What are containers?
63. What is orientation?
64. What is the importance of android in the mobile market?
65. What do you think are some disadvantages of android?
66. What is adb?
67. What are the four essential states of an activity?
68. What is ANR?
69. Which elements can occur only once and must be present?
70. How are escape characters used as attribute?
71. What is the importance of settings permissions in an app development?
72. What is the function of an intent filter?
73. Enumerate the three key loops when monitoring an activity?
74. When is the on stop() method invoked?
75. Is there a case wherein other qualifiers in multiple resources take precedence over locale?
76. What are different states wherein a process is based?
77. How can the ANR be prevented?
78. What role does Dalvik play in android development?
79. What is the android Manifest.xml?
80. What is the proper way of setting up an android-powered device for app development?
81. Enumerate the steps in creating a bounded service through AIDL?
82. What is the importance of default resources?
83. When dealing with multiple resources, which one takes precedence?
84. When does ANR occur?
85. What is AIDL?
86. What data types are supported by AIDL?
87. What is fragment?
88. What is a visible activity?
89. When is the best time to kill a foreground activity?
90. Is it possible to use or add a fragment without using a user interface?
91. How do you remove icons and widgets from the main screen of the android device?
92. What are the core components under the android application architecture?
93. What composes a typical android application project?
94. What is sticky intent?
95. Do all mobile phones support the latest android operating system?
96. What is portable wi-fi hotspot?
97. What is an action?
98. What is the difference between a regular bitmap and a nine-patch image?
99. What languages supported by android for application development?
100. Explain about the exceptions of android?



## **AUTOMATIC STREET LIGHT CONTROL USING IR SENSOR**

1. What is IR sensor?
2. What is the purpose of Arduino?
3. Expand LED?
4. What is meant by Transmitter and Receiver?
5. What is Transistor?
6. Name the terminals of Transistor?
7. Name the types of Transistor?
8. What is the purpose of Resistor?
9. What is the purpose of Capacitor?
10. What is meant by sensor?
11. What are the types of memory available?
12. What is meant by light sensor?
13. What is the principle of motor?
14. What is the principle of generator?
15. State Ohm's law?
16. State Newton's third law?
17. What is meant by flux?
18. What are the particles present in atom?
19. What is energy?
20. What is current?
21. What is the intensity of sound?
22. What are ultrasonic rays?
23. What is meant by velocity?
24. Define Acceleration?
25. Define Kinetic Energy?
26. Define Vibration?
27. What is rectifier?
28. What is inverter?
29. Where frictional force is used?
30. What is the SI unit of flux?
31. What is meant by gravitational force?
32. Expand RADAR?
33. What is transformer?
34. What are the types of transformer?
35. What are the range of conducting voltages for Germanium and Silicon?
36. What is Thyristor?
37. What is force?
38. Expand VIBGYOR?
39. What is zener diode?
40. What is Relay?
41. What is Battery?
42. What is reflection?
43. What is centrifugal force?
44. What is smog?
45. Who is the missile man of India?
46. What is android?
47. What is room temperature?
48. What is Raman effect?
49. Filament of electric blub is made up of?
50. What is meant by nuclear fusion?
51. What is meant by inductance?
52. What are programming languages?
53. Games are designed by which programming language?
54. What is known as rheostat?
55. What is diode?
56. What is meant by image processing?
57. How does the thyristor work?
58. What is good conductor?
59. Expand LDR?





60. Define translation motion?
61. What did u understand from this project?
62. What is the main aim of this project?
63. Expand RPM?
64. What is known as voltage?
65. What is the SI unit of power?
66. What is known as concave lens?
67. What type of charge does a electron carry?
68. What is the size of the electron when compared to proton and neutron?
69. What is the unit of light year?
70. What is the SI unit of hertz?
71. Expand SONAR?
72. What is meant by X-rays?
73. Who discovered X-ray?
74. What is meant by shadow?
75. What are the uses of air?
76. What is the unit of intensity of electric field?
77. Who gave Black hole theory?
78. Who is known as the “father of quantum theory”?
79. What is a node?
80. What is known as measurement?
81. What is physical quantity?
82. What is known as unit?
83. What is a lustre?
84. Define osmosis?
85. What is density?
86. What is mass?
87. What is respiration?
88. What is known as photosynthesis?
89. What is known as potential energy?
90. What is meant by a light beam?

91. What is diffusion?
92. What is known as luminous and non-luminous objects?
93. Define cell?
94. What is meant by internode?
95. What is apical bud?
96. What is vegetative propagation?
97. What is nutrients?
98. What is known as italic bees?
99. What is deficiency disorder?
100. What is meant by oscillatory motion?





## FULLY AUTOMATED FISH FEEDING DEVICE

1. What is the word “ Automated “ mean?
2. What is Resistor?
3. Why Resistors are colour Coded?
4. What are parts it involves?
5. How is a 3.9 k $\Omega$  resistor color-coded?
6. What Basic Components of Electronics?
7. What is Capacitor?
8. What is Capacitance?
9. What is LED?
10. What is the use of Resistors?
11. What is the use of Capacitors?
12. What is use of Switch?
13. What is difference between electric and electronics?
14. What is Relay?
15. What is a DC Supply?
16. What is a Motor?
17. What is use of Relay?
18. How a DC Motor Works?
19. Operation of Button in this Project?
20. What is a Servo motor?
21. What is Transformer?
22. What is Transistor?
23. What are terminals of Transistors?
24. What is Voltage?
25. What is difference between voltage and current ?
26. What is use of Servo motor in this project?
27. What are the sensors used?
28. What is Ultrasonic Sensor?
29. What is the work of IR sensor?
30. What is Current?
31. What is Semi-conductor?
32. Why we choose only servo motor?
33. What is RTC?
34. Need of using RTC?
35. What is Power dissipated?
36. How do we fix Resistors?
37. Which formula shows a direct proportionality between power and voltage?
38. Units of power?
39. What is effect of resistance?
40. What are the two major categories for resistors?
41. How many connections does a potentiometer have?
42. What are the Basic forms of Energy?
43. What is Ohm’s Law?
44. Power is defined as?
45. What is the most commonly used conductor in Electricity?
46. With Ohm's law, no change in resistance means that current and voltage will be?
47. A potentiometer has how many leads?
48. What is a Micro controller?
49. What happens to Current and Resistance if the Voltage Doubles?
50. Difference between Micro processors and micro controllers?
51. A colour code of orange, orange, orange is for what ohmic value?
52. Types of Micro controllers?
53. With 1 mA of current, what wattage rating should a 100 ohm resistor have?
54. How many basic types of resistors exist?
55. What does analog input means?
56. Digital input means?
57. Applications of this project?
58. What is the usage of arduino in our project?



59. How to code a Arduino?
60. What does the word “ Code “ mean ?
61. What are commands?
62. What is the supply voltage for a arduino?
63. How the arduino takes the values from RTC?
64. Why we used only Nano type in arduino?
65. How this arduino analyses the code?
66. Does arduino stores memory?
67. What is EEPROM?
68. Use of EEPROM?
69. Parameters required to move our shaft for provide food passage?
70. What does pins in arduino?
71. How may pins in arduino nano?
72. What does 3D printing means?
73. Use of 3D Printing?
74. Advantage of 3D Printing?
75. What does designing mean?
76. How does a 3D printer works?
77. What does a filament mean?
78. Use of 3D Printing in our Project?
79. How is power dissipated in a resistor?
80. Resistance in a circuit is:
81. The unit designator for resistance value is the:
82. One ampere of current flowing through one ohm of resistance is equal to:
83. What is Insulator?
84. What are Good Insulators?
85. How Insulators can be used?
86. What are the applications of Insulators?
87. What is Diode?
88. How Diodes are named?
89. What are the applications of diodes?

90. What is Semi-conductor?
91. Where Semi-conductors can be used?
92. What are the applications of Semi-conductors?
93. What is Rectifier?
94. Where can we use rectifiers?
95. What is the use of our project in daily life?
96. How can we still improve our project?
97. How Diodes can be used?
98. What happens to our device values if there is a power cut?
99. Our device lasts for?
100. What is soldering mean?



## V-NRGY

1. Define energy? How is energy measured?
2. What is law of conservation of energy?
3. Define kinetic energy?
4. What is potential energy?
5. What is mechanical energy?
6. What is objective of our project?
7. What are the advantages in project?
8. What are disadvantages in project?
9. What is current?
10. What is surge current?
11. How to measure Current ?
12. What is Ammeter?
13. What is voltage?
14. How to measure Voltage?
15. What is voltmeter?
16. Define battery?
17. What is Multi meter?
18. Define DC?
19. Give some examples of DC?
20. Define AC?
21. Give some examples of AC?
22. How you convert the Wind energy into Electrical energy?
23. Define Generator?
24. What are the specifications of your Generator?
25. Which Generator you are going to use in this project?
26. What is Shaft?
27. Define Motor?
28. What are the specifications of motor?
29. what is a turbine?
30. What are the types of wind turbine?

31. What are the types of vertical axis wind turbine?
32. What are the advantages of vertical axis wind turbine over horizontal axis wind turbine?
33. Which turbine you are going to use in this project?
34. Why did you modify the turbine?
35. Define cell? What are the types of cell?
36. Which type of cells are used in this project?
37. What is Relay?
38. Can a relay operate on both AC and DC?
39. Define Diode?
40. Define Zener Diode?
41. What is the difference between Diode and Zener diode?
42. What is filter?
43. what type of filter are you going to use?
44. Why do you use Capacitor filter ,why not other?
44. What is a capacitor?
45. How does a capacitor behave?
46. How does a capacitor behave when it is connected to AC?
47. Who invented battery?
48. How is a battery connected internally?
49. Why cells are connected in series and parallel?
50. What type of charging are you giving to battery?
51. The best indication about the state of charge on a lead acid battery is given by?
52. How can you know that the battery is completely charged?
53. What is the rating of your battery?
54. Why don't you use other batteries?
55. Do temperature have any effect on your battery?
56. What is the end of life of battery?
57. How do you identify your battery polarities?
59. How are going to supply constant voltage to charging supply?
60. What is rpm?



61. How do you convert linear velocity into angular velocity?
62. What happens if you rotate the turbine slowly?
63. What is Gear mechanism?
64. What are the power losses in the project?
65. Define friction?
66. What are the ways through which we can reduce friction in Gear mechanism?
67. What is lamp?
68. Who invented lamp?
69. What are the specialties in mercury vapour lamp?
70. What is the rating of your lamp?
71. What type of lamps are you going to install?
72. How much power is being generated by the generator?
73. What if there is a traffic jam or hospital , school zone , or else there is a bandh and vehicle movement is irregular?
74. How far can you extend the height?
75. Suppose a lamp is not glowing then how?
76. Define Automation.?
77. How to identify the fault?
78. Is your output continuous?
79. How to make it Reliable?
80. Define voltage regulator?
81. How can you increase your output capacity?
82. Define Converter?
83. What do you mean by circuit?
84. What is Boost Converter?
85. Define duty cycle?
86. What is our overall Efficiency?
87. During night also there is vehicle movement, is that air being used?
88. How many turbines are needed to feed a single street lamp?
89. How can you improve air quality?

90. Define pollutant?
91. What is being emitted by vehicles?
92. How are you going to purify the air?
93. How much percent of air can be purified?
- 94 . Any maintenance is required?
95. How can you improve air quality?
96. Can you explain the working of your project?
97. What did you learn from this project?
98. Are still interested in making this project build better and perfect?
99. How did you the idea about this project?
100. Who helped you so far to develop this project and what did you seek?


  
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## SOIL HEALTH MONITORING USING IOT

1. What is pH?
2. What is pH electrode?
3. Why Platinum wire is used?
4. What are parts it involved in pH electrode?
5. What is liquid sensor?
6. What is pH electrode?
7. What is Capacitor?
8. What is Capacitance?
9. What are different values?
10. What is analog value?
11. What is digital value?
12. What is soil?
13. What are components of soil?
14. How is fertile soil measured in terms of pH?
15. In what way is pH related to soil health?
16. What are reagents?
17. What is use of reagents?
18. Use of KCl in electrode bulb?
19. How conductivity takes place in glass bulb?
20. What is conduction?
21. What is conductivity?
22. In what ratio are water and soil mixed for testing purpose?
23. What are different types of soil?
24. What is average pH range of different soil?
25. What are major nutrients required for plant growth?
26. What is concentration of a solution?
27. How is concentration measured?
28. In what way concentration effects solution?
29. What is Standard Hydrogen electrode?
30. Is bulb of pH electrode sensitive to concentration?
31. How the pH electrode is protected?
32. What are physical factors effecting soil health?
33. What are measures to be followed while placing electrode bulb into soil mixture?
34. Applications of this project?
35. Reasons for choosing pH as parameter?
36. Why we only use distilled water while preparation of soil mixture?
37. How do we connect liquid sensor and pH electrode?
38. Why is liquid Sensor used?
39. In what way are the analog values obtained from pH electrode processed in liquid sensor?
40. What are components included in Liquid sensor?
41. What is Amplifier?
42. Why is Amplifier used in Liquid Sensor?
43. Why are capacitors used in Liquid sensor?
44. What is Voltage?
45. Differentiate DC and AC voltage?
46. Which voltage rated battery is required to power up Liquid Sensor?
47. What is Power?
48. Explain circuit diagram of Liquid Sensor?
49. Mention input and output of Liquid Sensor?
50. Plot a graph between output values of Liquid sensor and pH values:
51. When a graph is plotted between the processed analog (output) values and known pH values, what is the shape of graph?
52. The graph which we obtain after plotting values, is it helpful for calculating unknown pH?
53. Factors effecting the accuracy of measurement of pH?
54. What are measurements taken for avoiding errors in pH?





55. Units of power, voltage?
56. Type of Amplifier we use in our system?
57. Why aren't the analog values obtained directly from pH electrode taken?
58. Write down the most common errors we commit while handling the pH electrode?
59. Until what time should the soil solution be left undisturbed after properly stirring it with distilled water?
60. How values generated in pH electrode initially, write the principle?
61. What is the board which we are using? (NodeMCU)
62. What is the name of microcontroller(processor) present in NodeMCU? (ESP8266)
63. Reason behind selecting only NodeMCU?
64. How many analog pins are present in NodeMCU?
65. Explain the block diagram of NodeMCU?
66. How are analog values received from Liquid Sensor converted into digital values?
67. What are parts of NodeMCU?
68. Explain the role of Analog to Digital converter in NodeMCU?
69. What bit ADC is used in NodeMCU?
70. Explain the logic behind converting the digital values into desired pH values?
71. Is the same logic being implemented in your Code?
72. What is the voltage required by NodeMCU?
73. Explain the importance of this Wi-Fi Module in your project:
74. Is there an equivalent board which can replace NodeMCU?
75. Write down the input and output of NodeMCU?
76. Briefly explain how ADC converter works?
77. Mention the platform, IDE used for writing up the code in NodeMCU?
78. Programming Language used for writing code?
79. One advantage of using Arduino IDE over others?
80. What is IOT?
81. Does this project come under IOT applications, if yes then justify your statement?
82. Explain the use of IOT in day-to-day life?
83. Explain Arduino IDE briefly?
84. What is the role of Jumper wires?
85. Explain the term BAUD rate?
86. What is Serial Monitor?
87. Explain the dependency of Serial monitor over BAUD rate?
88. Does Arduino IDE contain debugger?
89. What is diode?
90. Explain the usage of diode in building up the amplifier?
91. Where are the outputs obtained from NodeMCU displayed?
92. Differentiate P-N junction diode and Zener diode?
93. Explain physics behind Soil Health Monitor system?
94. What is Blynk App?
95. Does Blynk come under MQTT application?
96. What is MQTT?
97. How does Blynk Application work?
98. Is Blynk application secure to use?
99. How many virtual ports are provided to us in Blynk Application?
100. Are pH values dynamically updated in Blynk Application?





# WATER WASTE MANAGEMENT

1. What is a micro controller?
2. How a micro controller works?
3. What is EPROM?
4. How to store values in the EPROM?
5. What are the commands use to read and write the values from the EPROM?
6. What are Flow sensors?
7. How many types of Flow meters are available?
8. What is water flow sensor?
9. What is the use of water flow sensor?
10. What are the parts it consisting of?
11. Where the water flow sensor is connected?
12. What is the diameter of water flow sensor?
13. What type of sensor is present in it?
14. What is the working principle of water flow sensor?
15. What are the applications of water flow sensor?
16. What are the benefits of water flow sensor?
17. How is water flow measured?
18. What are Units of flow meter?
19. How the Flow is measured?
20. What is Optical flow sensor?
21. What are the Ratings of Flowmeter?
22. What are the functions of water flow sensor?
23. What are the different types of water flow sensors?
24. What will be the cost of water flow sensor?
25. What is the maximum quantity of water measured by flow sensor?
26. What is the Density of water?
27. In which quantity water is measured?
28. What is a buck converter?

29. What is a booster?
30. What is Current?
31. What is Voltage?
32. What are Units of power?
33. What are the inputs of OLED?
34. Which pin is taken as output in OLED?
35. What is OLED display?
36. How does OLED work?
37. How the wires connected for OLED?
38. What is Node MCU?
39. Why do we Node MCU?
40. How does Node MCU works?
41. When should we use Node MCU?
42. What is the cost of Node MCU?
43. Are there any alternatives to Node MCU?
44. What are the parts of Node MCU?
45. Is Node MCU is a micro controller?
46. How the data is dumped to Node MCU?
47. How many digital pins are there in Node MCU?
48. How many analog pins are there in Node MCU?
49. What is the range of voltage range for the Node MCU?
50. Which version of Node MCU is being used in our project?
51. What are the applications of Node MCU?
52. What are the benefits of Node MCU?
53. How can we give supply to Node MCU?
54. What are analog pins?
55. What are digital pins?
56. What is sensor?
57. What is the purpose of using sensors?
58. Which type of sensor is used for measuring object distance?
59. What is ultrasonic sensor?



60. Why we are using ultrasonic sensors for measuring distance other than the other sensors?
61. What is the function of ultrasonic sensor?
62. What are the advantages of ultrasonic sensor?
63. What are the disadvantages of ultrasonic sensor?
64. What is the working principle of ultrasonic sensor?
65. What is the function of transmitter in ultrasonic sensor?
66. What is the function of emitter in ultrasonic sensor?
67. What are the pin names in ultrasonic sensor?
68. What is the use of ultrasonic sensor?
69. How can we interface the ultrasonic sensor to Arduino or Raspberry Pi?
70. Is ultrasonic sensor only used for measuring the object distance?
71. What is an Android application?
72. How to create an Android application?
73. How to use an Android application?
74. What are the features of an Android application?
75. Why do we need an Android Application?
76. How to navigate in an application?
77. How the mobile application is connected to water data?
78. What is Database?
79. What is Real-time database?
80. What is Google Firebase?
81. How to connect mobile application to Real-time database?
82. How to connect mobile application to Google Firebase?
83. How is data retrieved from Real-time database?
84. How the data is being collected in Firebase?
85. What software is being used to create an application?
86. What are the ways in which we can create a mobile application?
87. How to run an application on mobile device?
88. What are the steps in designing a mobile application?
89. What are the different approaches in developing an application once you are ready with your design?
90. What is user interface in a mobile application?
91. What is a user interface framework?
92. What is Flutter?
93. What is Visual Studio Code?
94. What is an Application Program Interface (API)?
95. What are the different types in mobile applications?
96. What are native applications?
97. What are hybrid applications?
98. What are Android and IOS?
99. What is Dart language and where it is used?
100. What is software development kit (SDK)?


  
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## EFFECTIVE IRRIGATION SYSTEM

1. When was the new agricultural policy established\_\_\_\_\_.
2. When was Micro irrigation launched\_\_\_\_\_.
3. Which among the following does not belong to welfare schemes for the farmers\_\_\_\_\_?
4. Which among the following is not a cereal\_\_\_\_\_?
5. Which sector is the back bone of Indian Economy\_\_\_\_\_.
6. Where in India is irrigation done by tanks\_\_\_\_\_.
7. How many types of irrigation are used in agriculture\_\_\_\_\_.
8. Crops grow well when they are\_\_\_\_\_.
9. Most essential element for crop is\_\_\_\_\_.
10. Water supply through pipe lines and tube wells to farm is known as\_\_\_\_\_.
11. Remains of salt over soil after evaporation of water is known as\_\_\_\_\_.
12. How often should you water plants\_\_\_\_\_.
13. When is the best time to water plants\_\_\_\_\_.
14. What is the most effective watering techniques\_\_\_\_\_.
15. If a plant's leaves are wilting, it needs more water
16. Plants with deep roots\_\_\_\_\_.
17. How much of the earth's water is fresh(non-salt) water\_\_\_\_\_.
18. How many types of Arduinos do we have?
19. What is the Micro controller used in Arduino Uno?
20. What does 'p' refer to in ATmega328p?
21. How many digital pins are there on the UNO board?
22. How many analog pins are used in Arduino Mega board?
23. \_\_\_\_\_are prebuilt circuit boards that fit on top of Android.
24. Which is the software or a programming language used for controlling of Arduino?
25. A micro controller is\_\_\_\_\_.
26. What was the first phone released that ran the Android OS?
27. A\_\_\_\_\_makes a specific set of the application data available to other applications.
28. What was Google's main business motivation for supporting Android?
29. Which one is not a nickname of a version of Android?
30. Android is based on Linux for the following areas
31. Which among the following are part of "application" layer of Android Architecture.
32. Which company developed Android?
33. Bluetooth is the wireless technology for\_\_\_\_\_.
34. The Bluetooth supports\_\_\_\_\_.
35. A Bluetooth network is called\_\_\_\_\_.
36. What is Bluetooth?
37. What is Bluetooth used for\_\_\_\_\_?
38. Who developed mobile phone and in which company it has been developed?
39. Term that is used to measure of thickness of wire is\_\_\_\_\_.
40. Personal communication service offers communication service such as
41. Wireless communication is started in\_\_\_\_\_.
42. Change in output of sensor with change in input is\_\_\_\_\_.
43. Which of the following error is caused by a reversal of measured property?
44. Smallest change which a sensor can detect is\_\_\_\_\_.
45. Sensor is a type of transducer.
46. Why is it difficult for farmers in parts of India and the middle East to fore cast water shortages?
47. Measuring soil MOISTURE can help scientists with which of the following?



48. The only way to accurately estimate the amount of soil MOISTURE available to a plant's is to measure it in place
49. What is humidity sensor?
50. Which sensors measure the moisture level using humidity?
51. Are capacitive sensors linear?
52. Starter is used in DC motor for which of the following purpose.
53. The main advantage of DC motors compared to Ac motors are \_\_\_\_\_
54. \_\_\_\_\_ is also called 'motor rule'?
55. LED is a type of \_\_\_\_\_.
56. How do LED's generate light?
57. How is light bulb brightness measured?
58. As the cell starts discharging, internal resistance of the cell will \_\_\_\_\_
59. The capacity of Battery is expressed in terms of \_\_\_\_\_
60. In Primary cells chemical energy is converted to electrical energy and also electrical energy can be converted to chemical energy.
61. Which of the following are not primary cells?
62. Secondary cells can be Rechargeable \_\_\_\_\_
63. Which of the following battery is also refer as Edison Battery.
64. Who is the back bone of food production?
65. How many types of irrigation systems are there?
66. Which is the best irrigation system?
67. What is a form of overhead irrigation?
68. Tank Water system is common in \_\_\_\_\_.
69. Which can give optimal solution for autonomous agriculture Operators?
70. What is the main traction unit for nourishment in farming?
71. What is used as a bulb in the homes and industries?
72. LED is based on what theory.
73. LED full form.
74. What works on the principal of an electromagnetic attraction?
75. Which objects are used to display images?
76. \_\_\_\_\_ are used to sense the moisture.
77. Which object helps to run a motor?
78. \_\_\_\_\_ is a wireless technology.
79. Controlling a \_\_\_\_\_ with mobile device like smartphone.
80. What is an open source electronic platform?
81. What is the main objective of this project?
82. India is a \_\_\_\_\_ based count
83. Drip irrigation is also known as \_\_\_\_\_.
84. Today India ranks \_\_\_\_\_ in world.
85. \_\_\_\_\_ % of civilization land depends on monsoon.
86. \_\_\_\_\_ % of water used in irrigation systems getting wasted.
87. \_\_\_\_\_ crops are the most watered crops.
88. Measuring soil MOISTURE can help scientists with which of the following.
89. A \_\_\_\_\_ makes a specific set of the application data available to other applications.
90. Tank Water system is common in...
91. LED is a type of \_\_\_\_\_.
92. What is humidity sensor?
93. What is the most effective watering techniques \_\_\_\_\_.
94. \_\_\_\_\_ is a wireless technology.
95. LED is based on what theory.
96. Watersupplythroughpipelinesandtubewellstofarmisknownas \_\_\_\_\_.
97. InPrimarycellschemicalenergyisconvertedtoelectricalenergyanda Isoelectricalenergycanbeconvertedtochemicalenergy.
98. Asthecellstartsdischarging,internalresistanceofthecellwill \_\_\_\_\_



99. What works on the principal of an electromagnetic attraction?

100. Drip irrigation is also known as.



## SMART CRADDLE

1. What is Resistor?
2. Why Resistors are colour Coded?
3. What are parts it involves?
4. What is RPM?
5. What is LED?
6. What Basic Components of Electronics?
7. What is the use of Resistors?
8. What is the use of Capacitors?
9. What is Switch?
10. What is Voltage?
11. What is the function of DC Motor?
12. What is LED?
13. What are the sensors used?
14. What is sound Sensor?
15. What is the function of a motor drive?
16. What is Current?
17. Applications of this project?
18. How do we fix Resistors?
19. Which formula shows a direct proportionality between power and voltage?
20. What are the Basic forms of Energy?
21. What is Ohm's Law?
22. Power is defined as?
23. With Ohm's law, no change in resistance means that current and voltage will be?
24. A potentiometer has how many leads?
25. What is the function of potentiometer?
26. What is Arduino?
27. How many analog pins are there in Arduino?
28. How many digital pins are there in Arduino?
29. Why is serial print done when it is not having any effect on the hardware working?
30. What is the language used for programming Arduino?
31. What is ESP32?
32. Why is ESP32 used?
33. Why was ESP8266 not used?
34. What is dual core processor?
35. Does ESP32 support dual core?
36. What is serial communication?
37. How can it be achieved in ESP32?
38. What is the working of RX pin?
39. What is the working of TX pin?
40. Will communication take place if RX-RX connected and TX-TX connected?
41. What is the mode it goes to when RX-RX is connected and TX-TX is connected?
42. What is Software Serial?
43. What is Hardware Serial?
44. How is Software Serial different from the normal serial monitor?
45. Why is wheel alignment necessary?
46. What is the use of delay in any program?
47. What are the types of motors?
48. What is digitalWrite?
49. What is analogWrite?
50. Why is analogWrite used in DC motors?
51. How is servo motor different from DC motor?
52. How many DC motors can be controlled using L298n motor driver?
53. Why is there a need for heat sink in motor drivers?
54. What happens when Enable pins in motor driver are short circuited?





55. Is it possible to control speed of motor when enable pins are short circuited in motor driver?
56. What is the use of moisture sensor?
57. What is a sound sensor?
58. How are the sensors interfaced with each other?
59. What is a cradle?
60. What is a smart cradle?
61. What is the main function of a smart cradle?
62. What is automatic swing?
63. How is automatic swing working?
64. Why the sound detector does not detect other sounds?
65. For how much time does the cradle swing automatically?
66. How much weight can the cradle carry?
67. Is the cradle portable?
68. What is the speed of the motion of the cradle?
69. How does the cradle detect wetness?
70. What is the use of camera in the cradle?
71. Is there any harm for the baby due to the sensors used?
72. Why is ESP32 used instead of Arduino?
73. Which motor is used in smart cradle?
74. How does the motor start working?
75. What is the use of smart cradle?
76. What is soothing mechanism in smart cradle?
77. How does the soothing mechanism work in smart cradle?
78. How can the sensors of the smart cradle be controlled?
79. Where will the wet sensor be placed?
80. Where will the camera will be place?
81. What mechanism is used to make the cradle swing?
82. What different types of materials can be used to make the cradle?
83. Can we use the sensors own different cradles?
84. What is the cost of the smart cradle?
85. What is the cost of the components of the cradle?
86. What are the places that the cradle can be used?
87. What is the app used to control the sensors?
88. How is the app connected to the microprocessor?
89. What is Google firebase?
90. How do we stop the automatic swing?
91. How will we know if the baby wets the cradle?
92. Can we control the swinging motion through phone?
93. Can we watch live video through phone?
94. Why to use wetness detector when diapers are available?
95. Why do we need automatic swing?
96. What are future features of smart cradle?
97. What is the market rate of the smart cradle?
98. Why is ESP8266 not used but ESP32 is used?
99. How is power supply given to the cradle?
100. What is the voltage needed for the motor?



## GARLAND MAKING MACHINE

1. What is a garland making machine?
2. How does garland Making machine work.?
3. What are the components of garland making machine.?
4. What is the principle of garland making machine.?
5. What is the weight of the whole machine.?
6. How long can a garland be stitched.?
7. What are the different types of garlands that can be stitched.?
8. What are the limitations of the garland making machine.?
9. What are dimensions of the garland making machine.?
10. What are the types of garland machines we have.?
11. What would be maintenance of the garland making machine.?
12. What level of knowledge is required for the operation of garland making machine.?
13. What is a stepper motor.?
14. What is the form of power we require for operation of the machine.?
15. Will this idea be revolutionary.?
16. What are sewing machine programs?
17. Is an industrial sewing machine the same as a household sewing machine?
18. What is backstitching in sewing?
19. How do I end a stitch when using a sewing machine?
20. How do I lock stitch on a sewing machine?
21. What is the actual difference between stitching and knotting.?
22. How do you adjust stitch length on a sewing machine?
23. Why is my thread looping underneath?
24. How do you fix a sewing machine that skips stitches?
25. How can I troubleshoot loose stitches on a sewing machine?
26. What Are We Actually Delivering?
27. What Are We NOT Delivering?
28. Is There A Deadline?
29. What Is The Benchmark For Success?
30. Who Is The Client...Really ?
31. Who Is The Point Of Contact?
32. Who Is Doing The Work?
33. Who Is The Audience For The Work?
34. What's your background, personally and professionally?
35. Have you worked in this industry before?
36. What was a challenging project, and how did you manage it?
37. What's your leadership style?
38. What's your communication style?
39. When do you know the project is off-track?
40. If the project is not adhering to schedule, how do you get it back on track?
41. What's your ideal project?
42. Do you have budget management experience?
43. Have you managed remote teams and outsourced resources?
44. How do you manage team members that are not working to their full potential?
45. How do you deal when you're overwhelmed or underperforming?
46. How do you work with customers, sponsors and stakeholders.?
47. Do you seek help outside of the project team?
48. Do you delegate?
49. What's the biggest mistake you've made on a project?
50. How did your last project end?
51. How do you prioritize tasks on a project?
52. What project management software do you prefer?
53. What's your preferred project management methodology?
54. How do you gain agreement with teams?
55. What's something you don't want us to know.?
56. RPM of motors.?



57. What is Arduino.?
58. What is a transformer ?
59. What is the function of a dc motor ?
60. Why should we use Arduino?
61. Applications of this project?
62. What are different types of dc motors available
63. What is a motor driver?
64. What are different motor drivers or controllers?
65. What are the different types of Arduino ?
66. What type of arduino is used in the project?
67. How much voltage does arduino uno needs
68. How many pins does arduino uno has?
69. What is the push button?
70. What are different types of batteries available?
71. What different kinds of conveyor belts are there?
72. Which pot sizes or trays are the various conveyor belts suitable for?
73. Does the maximum capacity of conveyors vary?
74. Do conveyor belts have ergonomic advantages?
75. What else do you need in a conveyor belt system apart from conveyor belts?
76. How are conveyor belts combined with other systems and processes in a nursery, i.e. delivery?
77. How much maintenance do conveyor belts need?
78. Do conveyor belts retain their value? How long do conveyor belts last?
79. What should you look out for when buying a conveyor belt?
80. How do you calculate the return on your conveyor belts?
81. How many years does it take to recoup the cost?
82. What do you understand by the term, robotics?
83. What is a robot?
84. Which was the first industrial robot?
85. What are the Laws of robotics?
86. List the name of the areas where robotics can be applied?
87. What do you understand by "humanoid robot"?
88. What are the basic aspects of robotics?
89. What are the components of a robot?
90. Why do we use robots in the industry
91. What is AI? Why do we implement AI in robots?
92. What are various types of sensors used in robotics?
93. What is a robot Locomotion?
94. What is Autonomous robot?
95. What is, "human-robot interaction"?
96. How to send information from the robot sensors to the robot controllers?
97. What is the Pneumatic System in robotics?
98. Name the basic unit of a robot which can be programmed to give instructions to the robot?
99. What is the degree of freedom in robotics?
100. How can it be determined?



# ADVANCED AGRICULTURE BY USING SENSOR AND ANIMAL PREVENTION

1. What is moisture?
2. What is sensor?
3. Why arduino using?
4. What are parts it involved in fitting in ardino board?
5. What is application of relay?
6. What is irrigation?
7. What are advantages of irrigation?
8. What are dis advantages of irrigation?
9. What Basic Components of Electronics?
10. What is the use of Resistors?
11. What is the use of Capacitors?
12. What is Switch?
13. What are the solar Components?
14. What is Relay?
15. What is the Number of Threaded rods used?
16. What is relay Design?
17. What is use of Relay?
18. Operation of Clap Switch in this Project?
19. Operation of laser light in this Project?
20. What is LDR?
21. What is Transformer?
22. What is Transistor?
23. What are terminals of Transistors?
24. What is Voltage?
25. What is the function of DC Motor?
26. What is percolation ?
27. What are the sensors used?
28. What is alarm Sensor?
29. What is the work of moisture sensor?
30. What is drip irrigation?
31. What is mortar?
32. Number of Resistors used in Clap Switch?
33. Difference between surface and sub surface?
34. Applications of this project?
35. Reasons for placing two-threaded Rods?
36. What is the function of sensor?
37. How do we fix ardino ?
38. Which formula shows a direct proportionality between power and voltage?
39. With 1 mA of current, what wattage rating should a 470 ohm resistor have?
40. How is a 3.9 k $\Omega$  resistor color-coded?
41. What resistor type is found in SIPs and DIPs?
42. What are the two major categories for resistors?
43. How many connections does a potentiometer have?
44. What are the Basic forms of Energy?
45. What is Ohm's Law?
46. Power is defined as?
47. What is the most commonly used conductor in Electricity?
48. With Ohm's law, no change in resistance means that current and voltage will be?
49. A potentiometer has how many leads?
50. What is the ratio of 13 to 47 expressed in Percentage?
51. What happens to Current and Resistance if the Voltage Doubles?
52. One problem with mechanically variable resistors is noticeable in alarm ?



53. What is solar energy?
54. A conductor's cross-sectional area in circular mils for  $\frac{1}{2}$  inch is:
55. Power is measured in units of:
56. How many basic types of resistors exist?
57. With a complex circuit, a supply source senses:
58. How many ohms of resistance allows a current of 720  $\mu$ A to flow when 3.6 kV is applied?
59. Which is the most important step utilized when measuring resistors?
60. Components designed to oppose the flow of current are called?
61. How many amps are used by a 100 watt, 120 volt light bulb?
62. The source is 24 volts and the load resistance is 100  $\Omega$ . What is the load current?
63. Resistors are identified as to wattage by?
64. What type of resistors has a tolerance rating of 5% or greater?
65. Resistor tolerance is either printed on the component, or is provided by?
66. How many connections does arduino have?
67. What are the parts of a solar connection?
68. The load resistance increases. How will the load current change?
69. What is the power dissipated by a 1.2 k $\Omega$  resistor with 12 volts across it?
70. How many joules of energy will a 10 W lamp dissipate in one minute?
71. Which type of test equipment is used to measure resistors?
72. What is Resistance?
73. If resistance decreases, then current will:
74. A wire with a smaller cross-sectional area will produce?
75. A 22-gauge wire will have a diameter in mils of?
76. The word *work* means that?
77. A good fuse will have?
78. What property does an incandescent lamp possess?
79. One advantage of a carbon film resistor over a carbon composition resistor is?
80. If a metallic conductor has a positive temperature coefficient of resistance, then?
81. What value of a  $\pm 5\%$  1.3 k $\Omega$  resistor as measured by a digital voltmeter would be considered within tolerance?
82. For  $P = V^2/R$ , a decrease in resistance should produce:
83. After a moisture sensor absorbed water what happen?
84. Wire wound resistors are usually used in circuits that have:
85. How is DC mortar auto power off ?
86. Resistance in a circuit is:
87. The unit designator for resistance value is the:
88. One ampere of current flowing through one ohm ?
89. What is moisture sensor?
90. What are Good sensors?
91. How can be ardno used?
92. What are the applications of laser ?
93. What is Diode?
94. How Diodes can be used?
95. What are the applications of diodes?
96. What is Semi-conductor?
97. Where Semi-conductors can be used?
98. What are the applications of Semi-conductors?
99. What is Rectifier?
100. Where can we use rectifiers?





## GESTURE TO VOICE TRANSLATOR

1. What is resistor?
2. What is sensor?
3. How many senses does human have?
4. What is microprocessor?
5. What is microcontroller?
6. What is flex sensor?
7. What values does flex sensor gives?
8. Is microcontroller an analog device or digital device?
9. What is digital signal?
10. What is the difference between analog and digital signal?
11. What is arduino?
12. How many pins do arduino mega has?
13. How to read flex sensor values using arduino?
14. What is microphone?
15. What is speaker?
16. How many pins does speaker has?
17. What is analog read in arduino?
18. What is digital read in arduino?
19. How many analog pins does arduino mega have?
20. How to connect flex sensor to arduino?
21. What is switch?
22. What is voltage?
23. What is memory?
24. What is current?
25. On what voltage does a typical electronic device works?
26. What is battery?
27. Does battery stores voltage or current?
28. What is ohms law?
29. Is voltage directly proportional to current or inversely proportional as per ohms law?
30. What is i2c communication?
31. What are the pins in i2c communication?
32. What does SDA stands for?
33. What does SCL stands for?
34. What is capacitor?
35. What are active components?
36. What are passive components?
37. Give some examples of active components?
38. Give some examples of passive components?
39. What are units of resistance?
40. What are units of voltage?
41. What is units of current?
42. What is a transducer?
43. What is sign language?
44. What is the difference between active and passive transducer?
45. What is electronics?
46. What is programming?
47. What is embedded programming?
48. Which programming language is used in embedded programming?
49. What is if condition in programming?
50. What is a loop in programming?
51. What is infinite loop and how to generate infinite loop in programming?
52. What is header file in programming?
53. What is the void setup in arduino?
54. What is void loop in arduino?
55. What is serial communication?
56. What is parallel communication?
57. What are the advantages of parallel communication?
58. How to break infinite loop in arduino?
59. What is delay in arduino?





60. What is reset?
61. What is binary system?
62. Which system is used in digital electronics?
63. What is transistor?
64. Can transistor be used as switch?
65. What is diode?
66. Can diode be used as switch?
67. What is resistor used for?
68. What is AC (alternating current)?
69. What is DC (direct current)?
70. Which voltage is used in house hold appliances?
71. What is the range of voltage supplied for household purpose?
72. Which voltage is used for electronics?
73. Who invented Ac?
74. Who invented Dc?
75. What is noise?
76. What is error?
77. What is systematic error?
78. What is breadboard?
79. What is soldering?
80. What is pcb?
81. What value of a  $\pm 5\%$   $1.3 \text{ k}\Omega$  resistor as measured by a digital voltmeter would be considered within tolerance?
82. For  $P = V^2/R$ , a decrease in resistance should produce:
83. After a moisture sensor absorbed water what happend?
84. Wire wound resistors are usually used in circuits that have:
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97. Where Semi-conductors can be used?
98. What are the applications of Semi-conductors?
99. What is Rectifier?
100. Where can we use rectifiers?

