



WELL-COME

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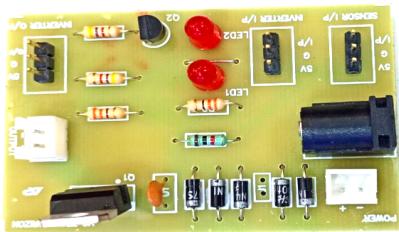


List of components

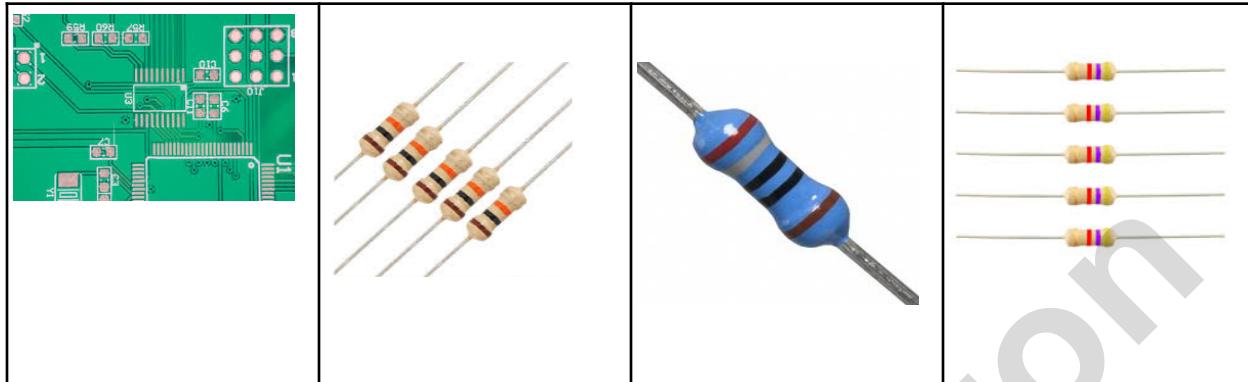
LDR SENSOR	IR SENSOR	SOIL MOISTURE SENSOR	VS Tech Inverter PCB
6F22 9V BATTERY	BATTERY CONNECTOR	5V DC PUMP MOTOR	Plastic Pipe
F-F Jumper Wire	F-M Jumper Wire	LED	Passive Buzzer



VS Tech Customized Inverter PCB



Components used for PCB:

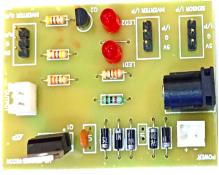


	<p>LM393-based design. It can detect ambient brightness and light intensity. Adjustable sensitivity (via blue digital potentiometer adjustment). Output Digital – 0V to 5V, Adjustable trigger level from preset. LEDs indicating output and power.</p> <p><u>VCC</u> ↔ 3.3V to 5V DC. <u>GND</u> ↔ Ground. <u>DO</u> ↔ Digital Output</p>
	<p>This is a General-purpose 9V Original HW marked Non-Rechargeable Battery for all your project and application needs. As we experienced the use of this battery in our testing lab for various purposes, we can assure you of the best quality.</p>
	<p>Color jumper wires, Length: 100 mm-200 mm, Weight: 20 gm, Compatible with 2.54mm spacing pin headers, High quality, and in good working condition. Durable and reusable, Easy to install and use.</p>



	<p>The module features a 3-wire interface with Vcc, GND, and an OUTPUT pin on its tail. It works fine with 3.3 to 5V levels. Upon hindrance/reflectance, the output pin gives out a digital signal (a low-level signal). The onboard preset helps to fine-tune the range of operation, the effective distance range is 2cm to 80cm.</p>
	<p>It is made of hard leather. Excellent material, fine workmanship. It is an environmental 9V battery buckle. Wire Length: 10cm. Color: Blue. Avoid the polarity conflict and short circuit.</p>
	<p>Size: 10mm Color: Red Head Shape: Round Lens Appearance: Transparent</p>
	<p>Dual output mode, analog output more accurate. A fixed bolt hole for easy installation. With power indicator (red) and digital switching output indicator (green). Having LM393 comparator chip, stable.</p> <p>VCC: 3.3V-5V GND: GND DO: Digital output interface(0 and 1) AO: Analog output interface</p>



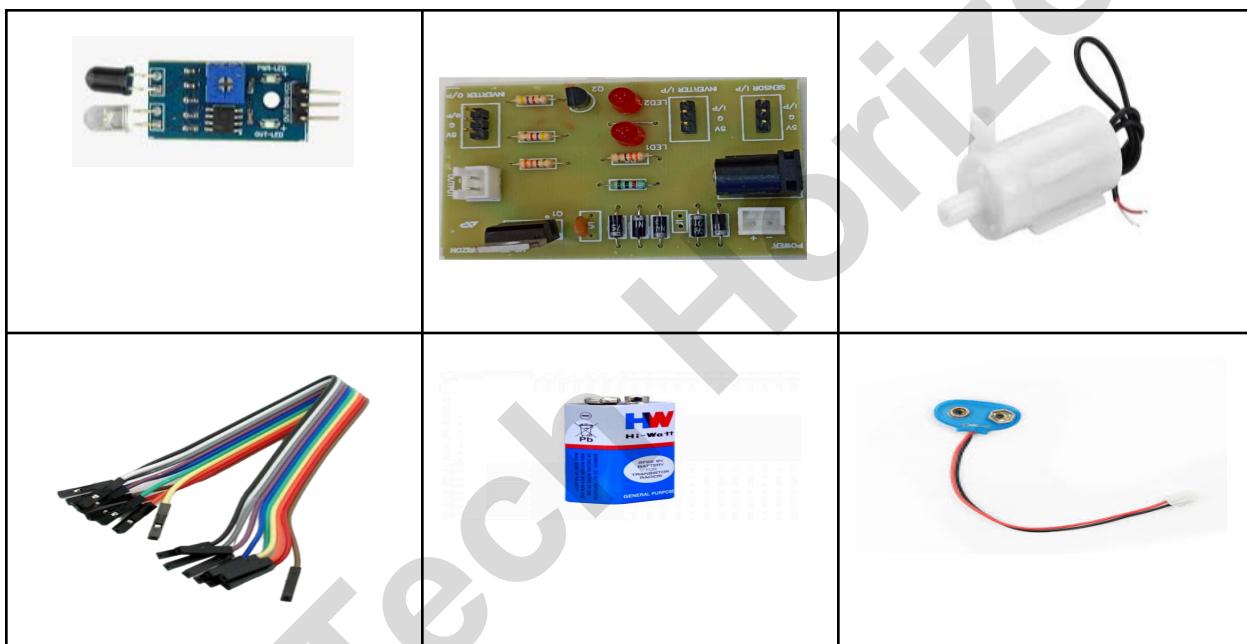
	<p>DC voltage: 2.5-6V, Maximum lift: 40-110cm/15.75"-43.4", Flow rate: 80-120L/H, Outer diameter of effluent: 7.5mm/0.3"</p>
	<p>It's a Power Inverter Made by (VS Tech Horizon) It is a multipurpose Power Convertible Inverter, converted from 5v to 9v electric current. Connects Sensors to Output.</p>
	<p>Lightweight, Transparent Water tube, Easy to install, Easy to handle Fill soft to our hands.</p>
	<p>Input Voltage(Max.): 5V, Resistance: 42 Ω, Resonance Frequency: 2048 Hz, Body Size: 12 x 8mm, Pin Pitch: 6mm, External Material: Plastic; Color: Black</p>



Hygiene Hero

Component Required :

- 1) IR Sensor X 1
- 2) Customized PCB X 1
- 3) 5v Water Pump Motor X 1
- 4) F-F jumper wire X 3
- 5) 9v Battery X 1
- 6) Battery Connector X 1



Steps to Implement

Step 1:

- ❖ Connect the Water Pump Motor to the Output of the PCB

Step 2:

- ❖ Now Connect the IR Sensor to the PCB Sensor I/P
 - > VCC(IR Sensor) => 5V(Inverter PCB)
 - > GND(IR Sensor) => G(Inverter PCB)
 - > OUT(IR Sensor) => I/P(Inverter PCB)

Step 3:

- ❖ Now it's time to connect the Battery cap to the Battery & Then connect that 2 pins female JST Connector to the Power(Inverter PCB)



Soil Guard (irrigation)

Component Required :

- 1) Soil Moisture Sensor X 1
- 2) 5v Water Pump Motor X 1
- 3) F-F jumper wire X 5
- 4) 9v Battery X 1
- 5) Battery Connector X 1
- 6) Transparent Water Tube X 1
- 7) Inverter PCB X 1



Steps to Implement:

Step 1:

- ❖ Take the Soil Moisture Sensor and Comparator and connect both with 2 M-M Jumper cables

Step 2:

- ❖ Now Connect the comparator to the Inverter PCB with 3 M-M Jumper Cables



- VCC(Comparator) => 5V(Inverter PCB)
- GND(Comparator) => G(Inverter PCB)
- DO(Comparator) => I/P(Inverter PCB)

Step 3:

- ❖ Connect the Water Pump Motor to the Output of the PCB

Step 4:

- ❖ Fix the plastic pipe to the DC Water Pump

Step 5:

- ❖ Now it's time to connect the Battery cap to the Battery & Then connect that 2 pins female JST Connector to the Power(Inverter PCB)

Step 6:

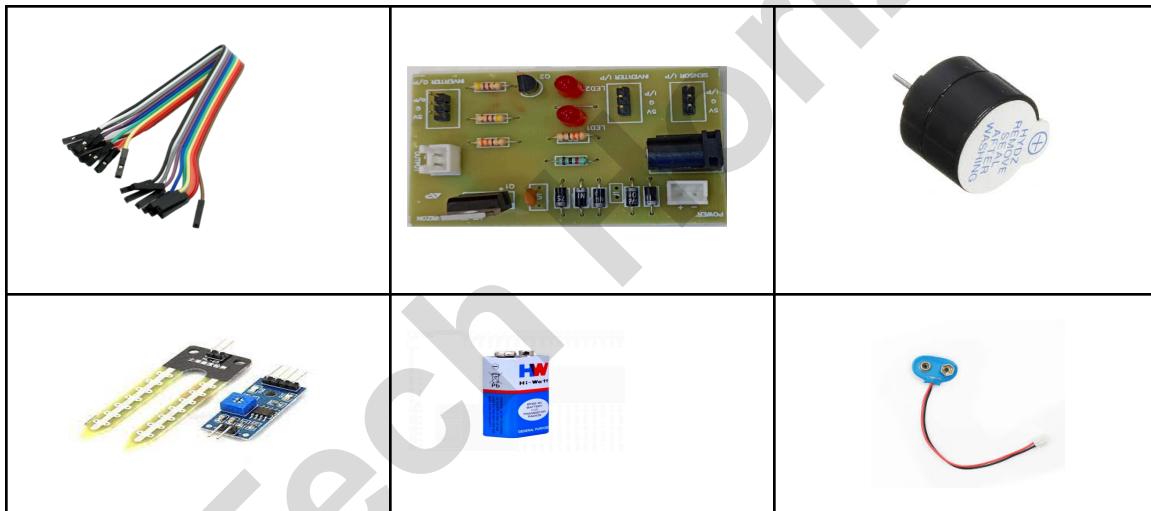
- ❖ Now check (If the sensor detects moisture then it should start the Motor)



Aqua Sense Pro

Component Required :

- 1) F-F jumper wire X 7
- 2) 9v Battery X 1
- 3) Battery Connector X 1
- 4) Soil Moisture Sensor X 1
- 5) Buzzer X 1
- 6) Customized PCB X1



Steps to Implement :

Step 1:

- ❖ Take the Soil Moisture Sensor and Comparator and connect both with 2 M-M Jumper cables

Step 2 :

- ❖ Now Connect the comparator to the Inverter PCB with 3 M-M Jumper Cables
 - VCC(Comparator) => 5V(Inverter PCB)
 - GND(Comparator) => G(Inverter PCB)
 - DO(Comparator) => I/P(Inverter PCB)

Step 3:

- ❖ Now Connect the Buzzer to the Inverter PCB Output
 - Long lead => +(Inverter PCB)



➤ Short lead => -(Inverter PCB)

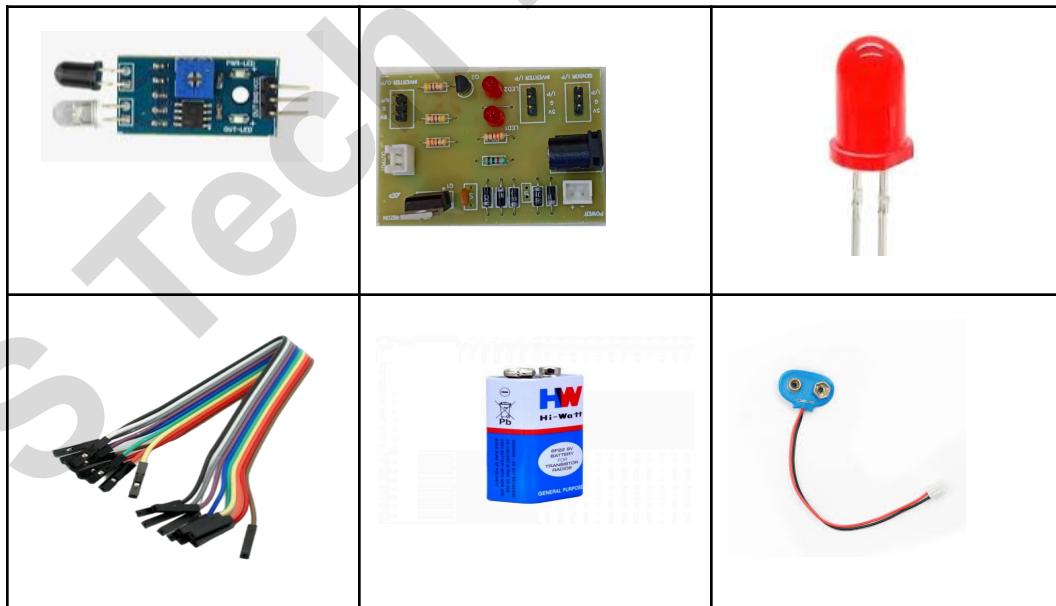
Step 4:

- ❖ Now it's time to connect the Battery cap to the Battery & Then connect that 2 pins female JST Connector to the Power(Inverter PCB)
- ❖ Now check (When the Soil Moisture Sensor Detects the Moisture automatically Motor will be on)

IR Notifier System

Component Required :

- 1) F-F jumper wire X 4
- 2) 9v Battery X 1
- 3) Battery Connector X 1
- 4) Customized PCB X 1
- 5) Single LED Light X 1
- 6) IR Sensor X 1



Steps to Implement :

Step 1:

- ❖ Connect the IR Sensor to the PCB Sensor I/P
 - VCC(IR Sensor) => 5V(Inverter PCB)



- GND(IR Sensor) => G(Inverter PCB)
- OUT(IR Sensor) => I/P(Inverter PCB)

Step 2:

- ❖ Now Connect the LED to the Inverter PCB Output
 - Long lead => +(Inverter PCB)
 - Short lead => -(Inverter PCB)

Step 3:

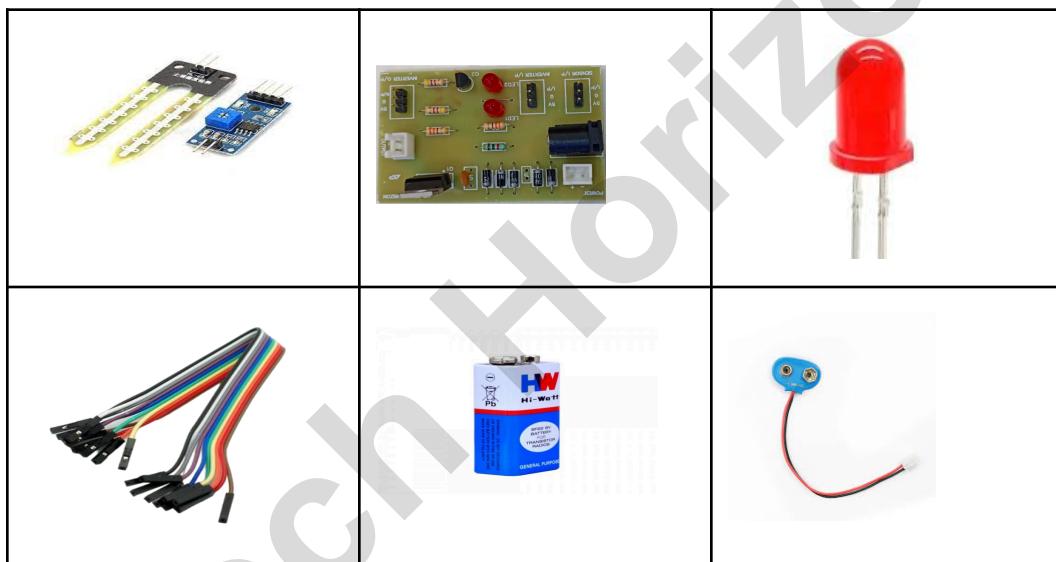
- ❖ Now it's time to connect the Battery cap to the Battery & Then connect that 2 pins female JST Connector to the Power(Inverter PCB)
- ❖ Now check (When IR Detects Object then LED will get ON)



Rain Alert System

Component Required :

- 1) Soil Moisture Sensor X 1
- 2) F-F jumper wire X 7
- 3) 9v Battery X 1
- 4) Battery Connector X 1
- 5) Customized PCB X 1
- 6) LED X 1



Steps to Implement

Step 1:

- ❖ Take the Soil Moisture Sensor and Comparator and connect both with 2 M-M Jumper cables

Step 2:

- ❖ Now Connect the comparator to the Inverter PCB with 3 M-M Jumper Cables
 - VCC(Comparator) => 5V(Inverter PCB)
 - GND(Comparator) => G(Inverter PCB)
 - DO(Comparator) => I/P(Inverter PCB)

Step 3:

- ❖ Now Connect the LED to the Inverter PCB Output
 - Long lead => +(Inverter PCB)
 - Short lead => -(Inverter PCB)



Step 4:

- ❖ Now it's time to connect the Battery cap to the Battery & Then connect that 2 pins female JST Connector to the Power(Inverter PCB)
- ❖ Now check (When the Soil Moisture Sensor Detects Moisture then the LED will get ON)

Motion notifier

Component Required :

- 1) IR Sensor X 1
- 2) F-F jumper wire X 5
- 3) 9v Battery X 1
- 4) Battery Connector X 1
- 5) Customized PCB X 1
- 6) Buzzer X1



Steps to Implement

Step 1:

- ❖ Connect the IR Sensor to the PCB Sensor I/P
 - > VCC(IR Sensor) => 5V(Inverter PCB)
 - > GND(IR Sensor) => G(Inverter PCB)
 - > OUT(IR Sensor) => I/P(Inverter PCB)

Step 2:

- ❖ Now Connect the Buzzer to the Inverter PCB Output
 - > Long lead => +(Inverter PCB)
 - > Short lead => -(Inverter PCB)



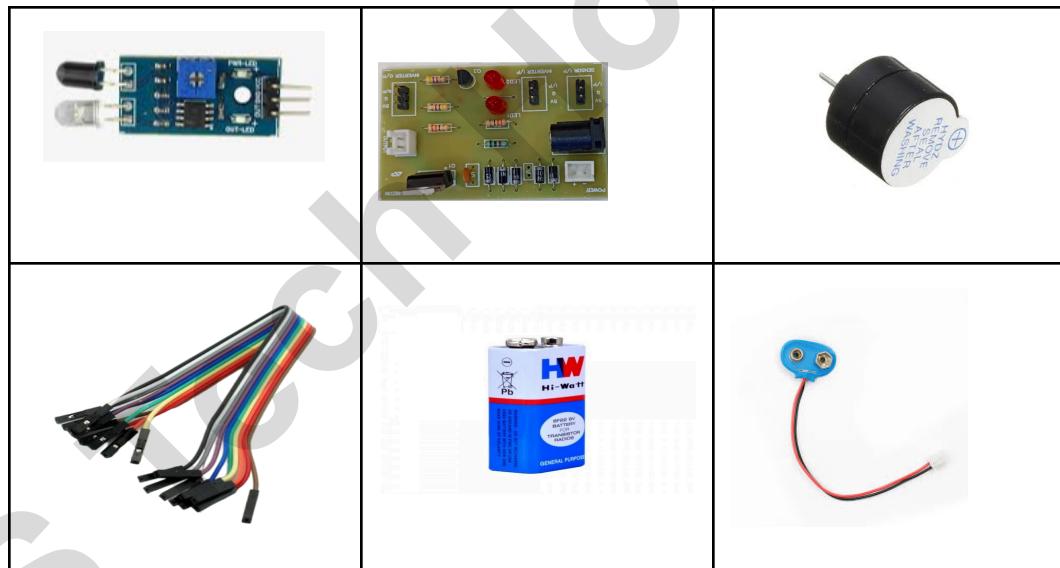
Step 3:

- ❖ Now it's time to connect the Battery cap to the Battery & Then connect that 2 pins female JST Connector to the Power(Inverter PCB)
- ❖ Now check (When the IR Sensor Detects an Object then the Buzzer will make a sound)

Defend Alarm

Component Required :

1. IR Sensor X 1
2. F-F jumper wire X 5
3. 9v Battery X 1
4. Battery Connector X 1
5. Customized PCB X 1
6. Buzzer X 1



Steps to Implement

Step 1:

- ❖ Connect the IR Sensor to the PCB Sensor I/P
 - VCC(IR Sensor) => 5V(Inverter PCB)
 - GND(IR Sensor) => G(Inverter PCB)
 - OUT(IR Sensor) => I/P(Inverter PCB)

Step 2:

- ❖ Now Connect the Buzzer to the Inverter PCB Output
 - Long lead => +(Inverter PCB)
 - Short lead => -(Inverter PCB)



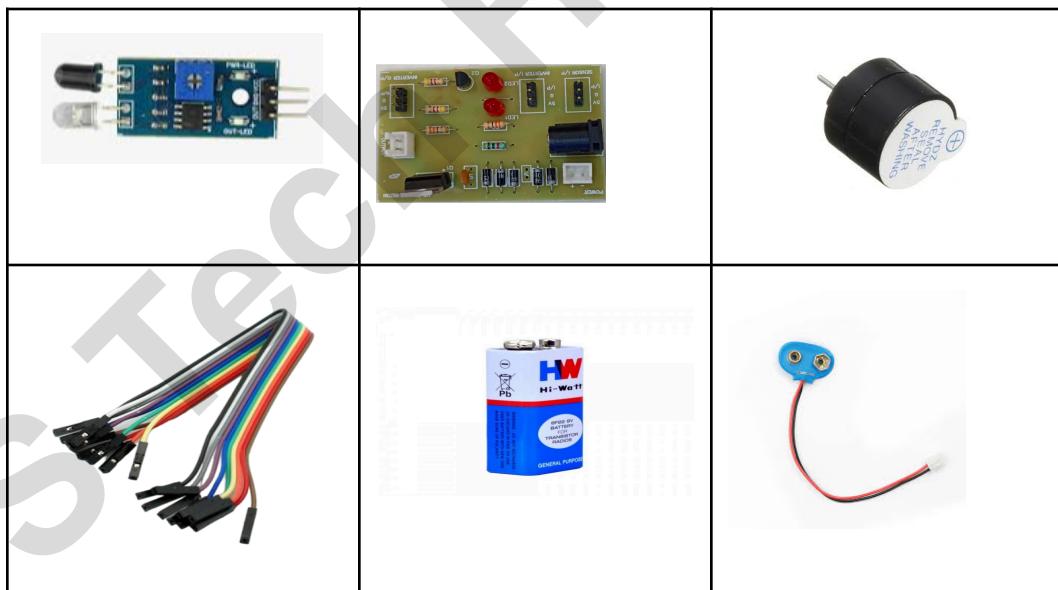
Step 3:

- ❖ Now it's time to connect the Battery cap to the Battery & Then connect that 2 pins female JST Connector to the Power(Inverter PCB)
- ❖ Now check (When the IR Sensor Detects an Object then the Buzzer will make a sound)

Touchless Doorbell

Component Required :

- 1) IR Sensor X 1
- 2) F-F jumper wire X 5
- 3) 9v Battery X 1
- 4) Battery Connector X 1
- 5) Customized PCB X1
- 6) Buzzer X 1



Steps to Implement

Step 1:

- ❖ Connect the IR Sensor to the PCB Sensor I/P
 - > VCC(IR Sensor) => 5V(Inverter PCB)
 - > GND(IR Sensor) => G(Inverter PCB)
 - > OUT(IR Sensor) => I/P(Inverter PCB)



Step 2:

- ❖ Now Connect the Buzzer to the Inverter PCB Output
 - Long lead => +(Inverter PCB)
 - Short lead => -(Inverter PCB)

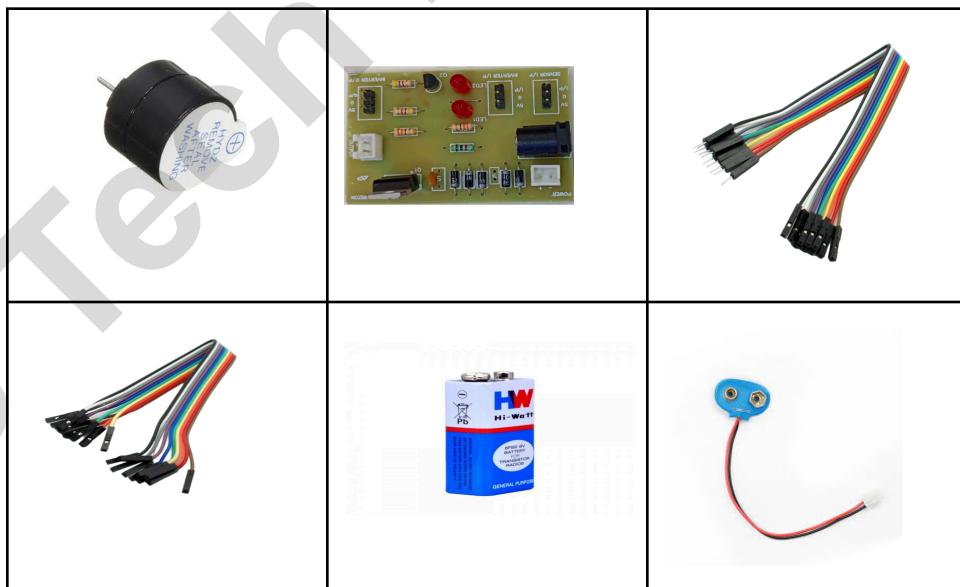
Step 3:

- ❖ Now it's time to connect the Battery cap to the Battery & Then connect that 2 pins female JST Connector to the Power(Inverter PCB)
- ❖ Now check (When the IR Sensor Detects an Object then the Buzzer will make a sound)

Water Level Alarm

Component Required :

1. M-F jumper wire X 2
2. 9v Battery X 1
3. Battery Connector X 1
4. Customized PCB X 1
5. Buzzer X 1
6. M-M Jumper Cables X 2



Steps to Implement

Step 1:

- ❖ Now Connect the Buzzer to the Inverter PCB Output
 - Long lead => +(Inverter PCB)



- Short lead => -(Inverter PCB)

Step 2:

- ❖ Now Take 2 M-F Jumper Cables and connect to Inverter PCB Sensor I/P
 - 1st Jumper cable => G
 - 2nd Jumper Cable => I/P

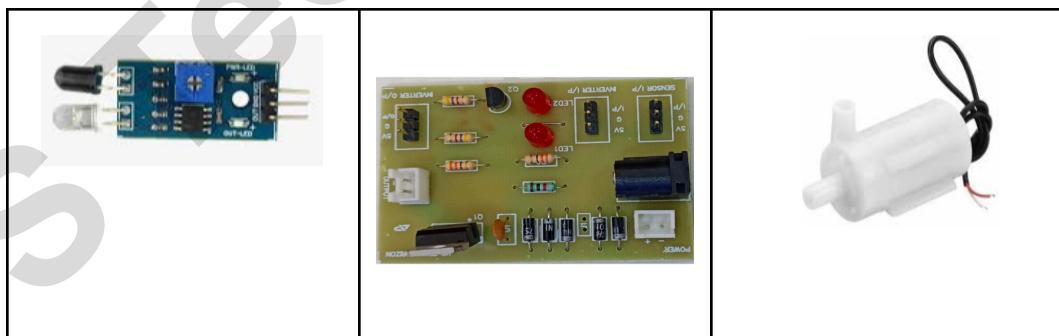
Step 3:

- ❖ Now it's time to connect the Battery cap to the Battery & Then connect that 2 pins female JST Connector to the Power(Inverter PCB)
- ❖ Now check (When water is connected to the M-F Jumper cable then the Automatically Buzzer will Buzz)

Fire Fighter

Component Required :

1. IR Sensor X 1
2. F-F jumper wire X 3
3. 9v Battery X1
4. Battery Connector X 1
5. Customized PCB X 1
6. DC Water Pump X 1





Steps to Implement

Step 1:

- ❖ Connect the IR Sensor to the PCB Sensor I/P
 - > VCC(IR Sensor) => 5V(Inverter PCB)
 - > GND(IR Sensor) => G(Inverter PCB)
 - > OUT(IR Sensor) => I/P(Inverter PCB)

Step 2:

- ❖ Connect the Water Pump Motor to the Output of the PCB

Step 3:

- ❖ Fix the Plastic Pipe to the Water DC Pump Motor

Step 4:

- ❖ Now it's time to connect the Battery cap to the Battery & Then connect that 2 pins female JST Connector to the Power(Inverter PCB)
- ❖ Now check (When IR Sensor Detects fire then automatically it will start Motor)



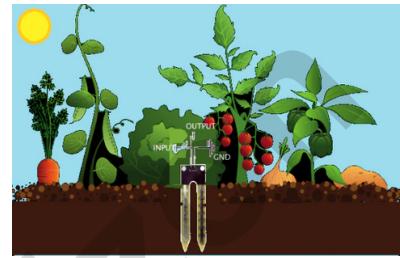
Application Images :



Hygiene Hero



Soil Guard (irrigation)



Aqua Sense Pro



IR Notifier System



Rain Alert System



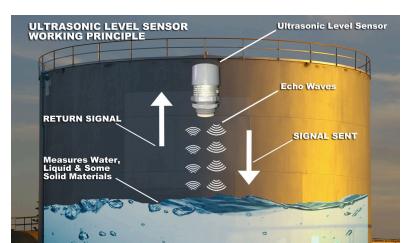
Motion notifier



Defend Alarm



Touchless Doorbell



Water Level Alarm



Fire Fighter

THANK YOU