



BLIND STICK

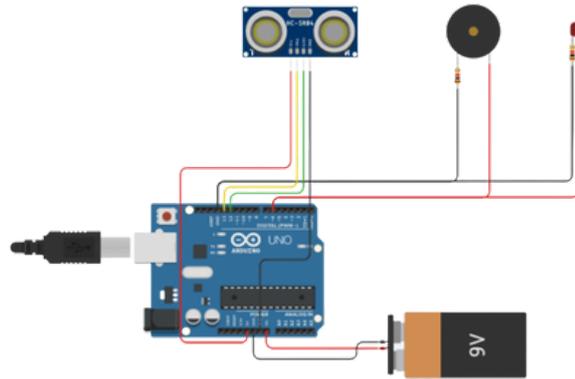


This project deals with a very common problem faced by blind people that they get collapsed with the obstacle or anything in front of them so to avoid this problem this Blind Stick is very useful.

In this Blind Stick an ultrasonic sensor is used to sense the object or obstacle and turns on the LED and produces a sound so that the person can stop and avoid collapsing with the obstacle.

Hardware required

- Arduino Uno R3
- LED
- Resistor
- Jumper Wires
- Ultrasonic Sensor
- Buzzer
- 9v Battery



Arduino Code

```
#define trigPin 13
#define echoPin 12
#define motor 7
#define buzzer 6

void setup(){
  pinMode(trigPin,OUTPUT);
  pinMode(echoPin,INPUT);
  pinMode(motor,OUTPUT);
  pinMode(buzzer,OUTPUT);
}
```

```
void loop(){
  long duration,distance;
  digitalWrite(trigPin,LOW);
  delayMicroseconds(2);
  digitalWrite(trigPin,HIGH);
  delayMicroseconds(10);
  digitalWrite(trigPin,LOW);
  duration=pulseIn(echoPin,HIGH);
  distance=(duration/2)/29.1;
  if(distance<80){
    digitalWrite(motor,HIGH);
    digitalWrite(buzzer,HIGH);
  }else{
    digitalWrite(motor,LOW);
    digitalWrite(buzzer,LOW);
  }
  delay(500);
}
```



Precautions

1. Connections should be done properly.
2. Arduino is case Sensitive so code accordingly.
3. Give different and appropriate colours to the wires.
4. Use resistors for sensors and LED's.