### **Ultrasonic Sensor**

### Harsha R

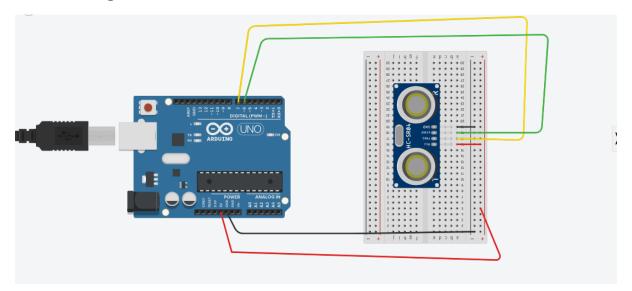
### 1BM28CS034

Aim: To display the distance of an object using ultrasound sensor

### Write Up

```
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                              IBMIRCS 034
   Ultra sonc school
                               dus
int trig_pin = ?;
int echo-pin = 6,
usid setup () &
  Serial vegin (9600);
 pin Mode (teig-pin, OUTPUT),
pin Mode (echo-pin, INPUT),
I () good bien
 long dilation, cm;
  digital alute (trig-pin, LOW);
   delay (2);
  digital cuite ( trigger trip pin, HIGH);
  delay (10),
  digitalculaite ( trig pin, LOW),
   dislation = pulse I'an (echo_pin_HIaH);
   cm = duration /58;
    Serial plint (" Distance: ");
    Serial printer ("but om);
    delay (SOO),
```

## **Circuit Diagram**



# <u>Code</u>

```
int trig_pin = 7;
int echo_pin = 6;

void setup()
{
   pinMode(trig_pin,OUTPUT);
   pinMode(echo_pin,INPUT);
   Serial.begin(9600);
}

void loop()
{
   long duration,cm;
   digitalWrite(trig_pin,LOW);
```

```
delay(2);
digitalWrite(trig_pin,HIGH);
delay(10);
digitalWrite(trig_pin,LOW);
duration = pulseIn(echo_pin,HIGH);
cm = duration/29/2;
Serial.print("Distance: ");
Serial.println(cm);
delay(500);
}
```

## **Observation**

The distance of the object is determined and is printed.

### **Output**

```
Distance: 0
Distance: 115
Distance: 115
Distance: 115
Distance: 115
Distance: 115
Distance: 110
Distance: 106
Distance: 106
```