Ultrasonic Sensor

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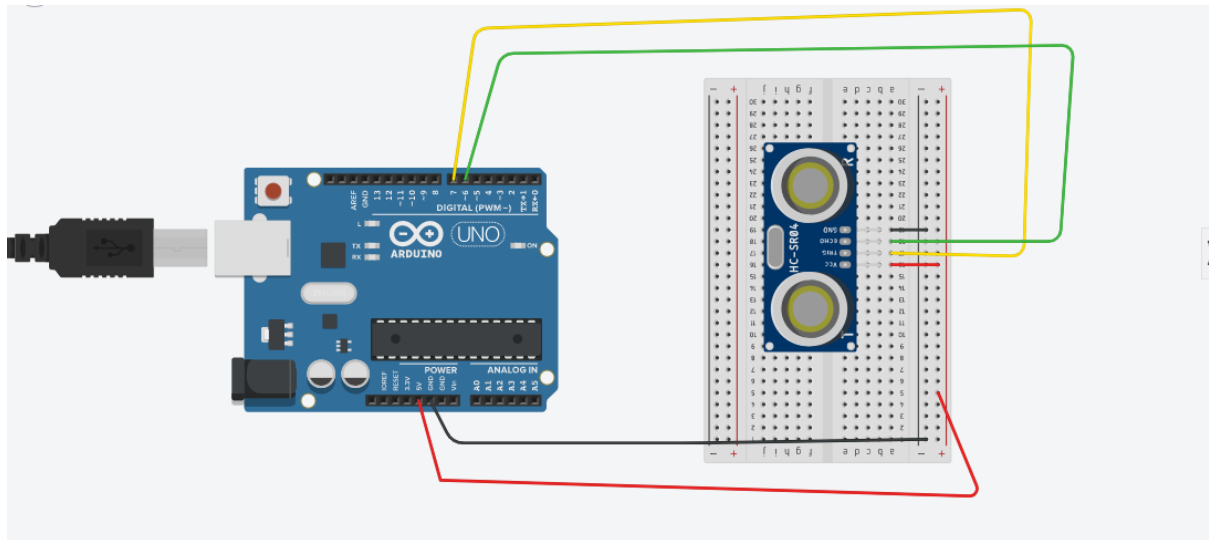
Write Up

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Ultra sonic sensor

```
int trig-pin = 7;
int echo-pin = 6;

void setup() {
    Serial.begin(9600);
    pinMode(trig-pin, OUTPUT);
    pinMode(echo-pin, INPUT);
}

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 / 58;
    Serial.print("Distance : ");
    Serial.println(cm);
    delay(500);
}
```

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Circuit Diagram

Code

```
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


```
Serial Monitor
Distance: 0
Distance: 115
Distance: 115
Distance: 115
Distance: 115
Distance: 110
Distance: 106
Distance: 106
```