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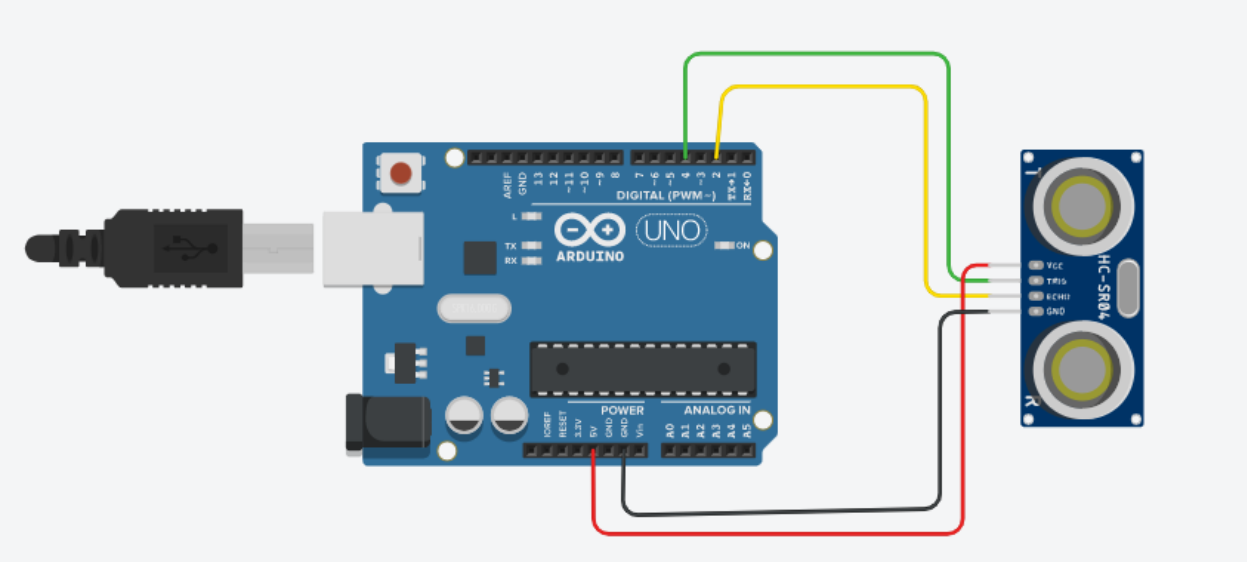
PROGRAM TITLE: DISTANCE MEASURING

Aim: DESIGN A SYSTEM TO MEASURE THE DISTANCE BETWEEN OBJECTS

Hardware Required:

- Arduino Board
- Ultrasonic Sensor

Circuit Diagram:



Write-Up:

Name: Sakshi Srivastava (1BM18CS090) Date: 7/10/2020

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Aim: Design a system to measure the distance between objects.

HARDWARE REQUIRED:

- Arduino - Board
- ultrasonic sensor

CODE :-

```
int trigPin = 4;
int echoPin = 2;
long duration, cm, inches;

void setup () {
Serial.begin(9600);
pinMode (trigPin, OUTPUT);
pinMode (echoPin, INPUT);
}

Void loop()
{ digitalWrite (trigPin, LOW);
  delayMicroseconds (5);
  digitalWrite (trigPin, HIGH);
  delayMicroseconds (10);
  digitalWrite (trigPin, LOW);
```

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```
pinMode(echoPin, INPUT);
duration = pulseIn(echoPin, HIGH);

cm = (duration/2)/29.1;
inches = (duration/2)/74;
Serial.print ("Distance : ");
Serial.print (inches);
Serial.print ("in, ");
Serial.print (cm);
Serial.print ("cm");
Serial.println();

delay(250);
}
```

CODE:

```
int trigPin = 4;
int echoPin = 2;
long duration, cm, inches;

void setup() {
  Serial.begin (9600);
  pinMode(trigPin, OUTPUT);
  pinMode(echoPin, INPUT);
}

void loop()
{

  digitalWrite(trigPin, LOW);
  delayMicroseconds(5);
  digitalWrite(trigPin, HIGH);
  delayMicroseconds(10);
  digitalWrite(trigPin, LOW);

  pinMode(echoPin, INPUT);
  duration = pulseIn(echoPin, HIGH);

  cm = (duration/2) / 29;
```

```
  inches = (duration/2) / 74;
  Serial.print("Distance: ");
  Serial.print(inches);
  Serial.print("inches, ");
  Serial.print(cm);
  Serial.print("cm");
  Serial.println();

  delay(250);
}
```

OUTPUT/OBSERVATION:

The distance is being measured.