ASSIGNMENT 1

SMART HOME IN TINKERCAD

Assignment Date	21-09-2022
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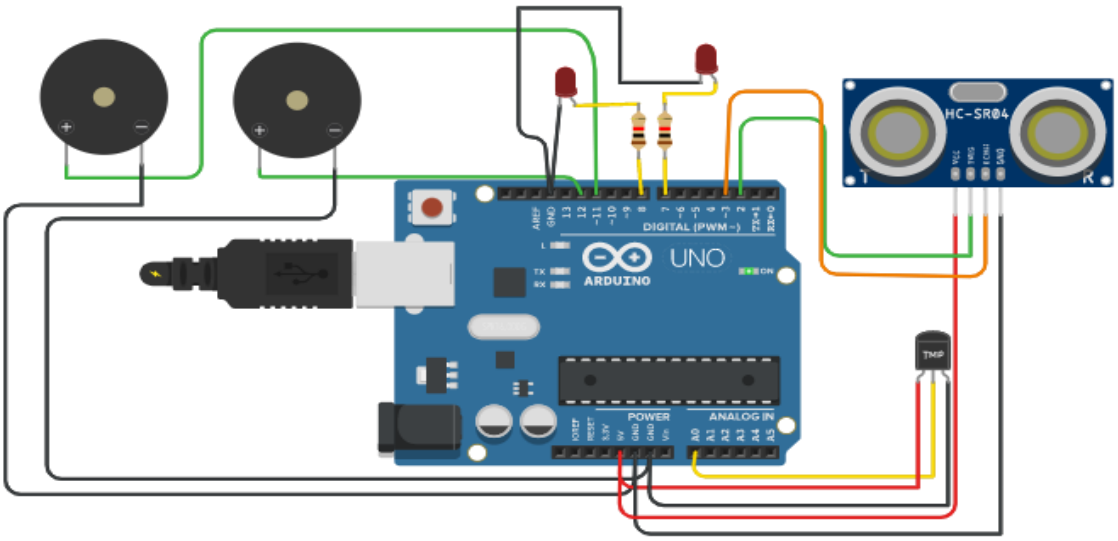
Team ID	PNT2022TMID34030
Maximum Marks	2 Marks

Circuit Diagram:-



SOURCE CODE:

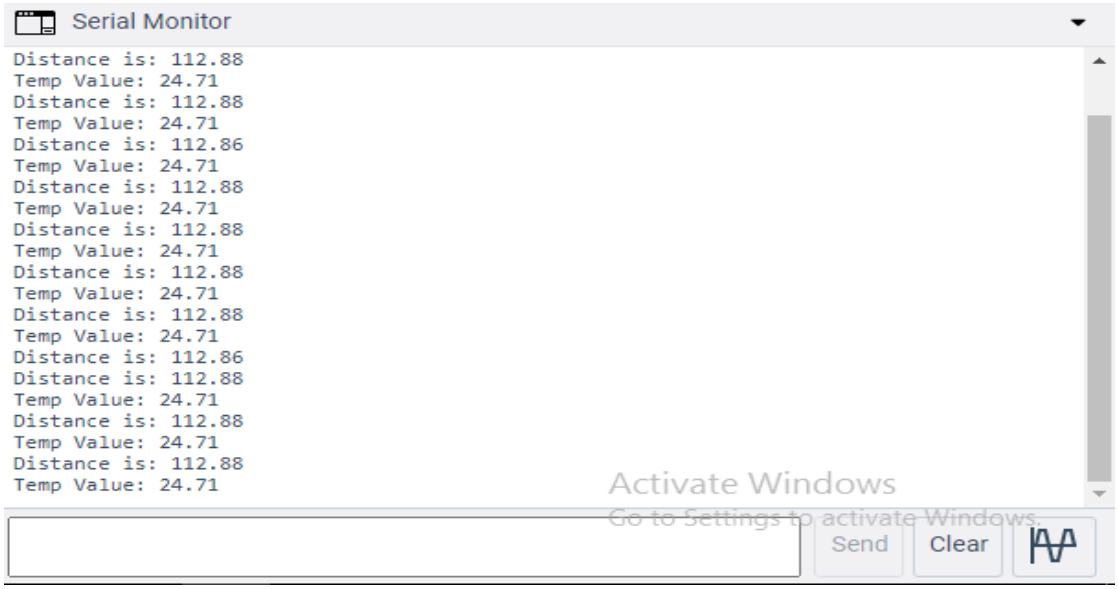
```
// C++ code
//
int trig=2;
int echo=3;
void setup()
{
  Serial.begin(9600);
  pinMode(trig,OUTPUT);
  pinMode(echo,INPUT);
  pinMode(12,OUTPUT);
}
void loop()
{
  //ultrasonic sensor
  digitalWrite(trig,LOW);
  digitalWrite(trig,HIGH);
  delayMicroseconds(10);
  digitalWrite(trig,LOW);
  float dur=pulseIn(echo,HIGH);
  float dis=(dur*0.0343)/2;
  Serial.print("Distance is: ");
  Serial.println(dis);
```

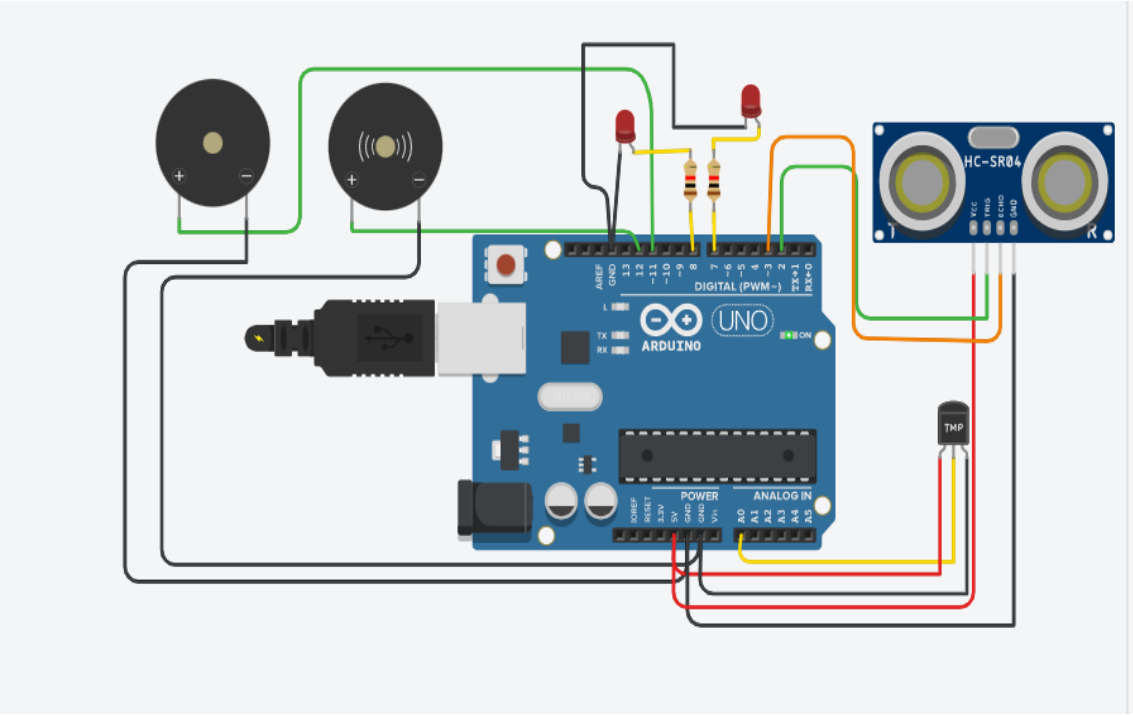
```
  //LED ON
if(dis>=100)
{
  digitalWrite(8,HIGH);
  digitalWrite(7,HIGH);
}
  //Buzzer For ultrasonic Sensor
if(dis>=100)
{
for(int i=0; i<=30000; i=i+10)
{
tone(12,i);
delay(1000);
noTone(12);
delay(1000);
}
}
 //Temperate Sensor
double a= analogRead(A0);
double trig=(((a/1024)*5)-0.5)*100;
Serial.print("Temp Value: ");
Serial.println(trig);
delay(1000);

 //LED ON
```

```
 if(trig>=100)
 {
  digitalWrite(8,HIGH);
  digitalWrite(7,HIGH);
 }
 //Buzzer for Temperature Sensor
 if(trig>=100)
 {
 for(int i=0; i<=30000; i=i+10)
 {
 tone(12,i);
 delay(1000);
 noTone(12);
 delay(1000);
 }
 }
//LED OFF
 if(trig<100)
 {
  digitalWrite(8,LOW);
  digitalWrite(7,LOW);
 }
}
```

OUTPUT:


Serial Monitor
Distance is: 112.88
Temp Value: 24.71
Distance is: 112.88
Temp Value: 24.71
Distance is: 112.86
Temp Value: 24.71
Distance is: 112.88
Temp Value: 24.71
Distance is: 112.88
Temp Value: 24.71
Distance is: 112.88
Temp Value: 24.71
Distance is: 112.88
Temp Value: 24.71
Distance is: 112.88
Temp Value: 24.71
Distance is: 112.86
Distance is: 112.88
Temp Value: 24.71
Distance is: 112.88
Temp Value: 24.71
Distance is: 112.88
Temp Value: 24.71
Activate Windows
Go to Settings to activate Windows.
Send
Clear


HC-SR04
DIGITAL (PWM~)
UNO
ARDUINO
POWER
ANALOG IN
TMP