

Assignment -1

HOME AUTOMATION USING SENSORS IN TINKERCAD

Assignment Date	15 September 2022
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Maximum Marks	2 Marks

Question:

Make a smart home with 2-3 sensors , LED and Buzzer in single code and connections .

Solutions:

CODE:

```
int trigger_pin = 2;  
int echo_pin = 3;  
int buzzer_pin = 10;  
int time;  
int distance;  
void setup()  
{  
    Serial.begin (9600);  
    pinMode (trigger_pin, OUTPUT);  
    pinMode (echo_pin, INPUT);  
    pinMode (buzzer_pin, OUTPUT);  
    pinMode (10,OUTPUT);  
}  
void loop()  
{  
    digitalWrite(13,HIGH);  
    digitalWrite(13,LOW);  
    double a = analogRead(A0);
```

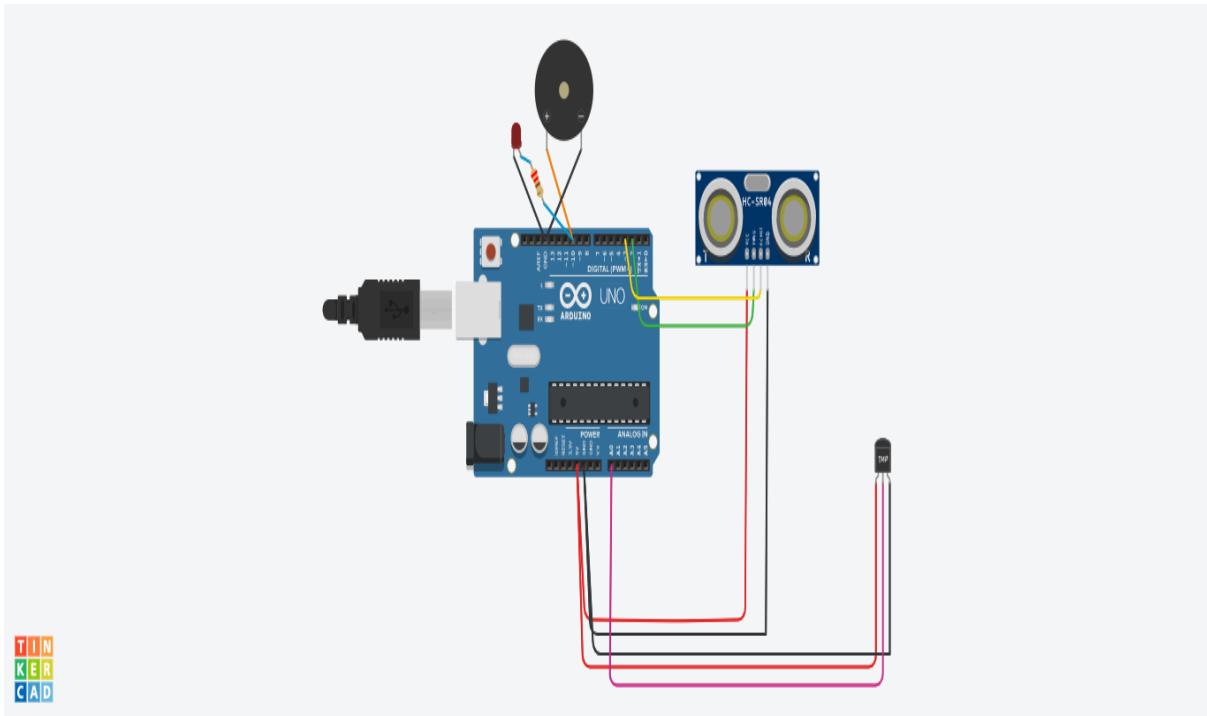
```
double c = (((a/1024)*5)-0.5)*100;
Serial.print("Celsius value: ");
Serial.println(c);
delay(1000);
digitalWrite (trigger_pin, HIGH);
delayMicroseconds (10);
digitalWrite (trigger_pin, LOW);
time = pulseIn (echo_pin, HIGH);
distance = (time * 0.034) / 2;

if (distance <= 10)
{
    Serial.println (" Door Open ");
    Serial.print (" Distance= ");
    Serial.println (distance);
    digitalWrite (buzzer_pin, HIGH);
    delay (500);
}

else {
    Serial.println (" Door closed ");
    Serial.print (" Distance= ");
    Serial.println (distance);
    digitalWrite (buzzer_pin, LOW);
    delay (500);
}

}
```

CIRCUIT:



REFERENCE LINK:

<https://www.tinkercad.com/things/fpbDluYF6Yh-home-automation-using-sensors/editel>

