

Assignment -1

HOME AUTOMATION USING SENSORS IN TINKERCAD

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| Assignment Date | 15 September 2022 |
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| Student Roll Number | 721419106030 |
| 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
```

```

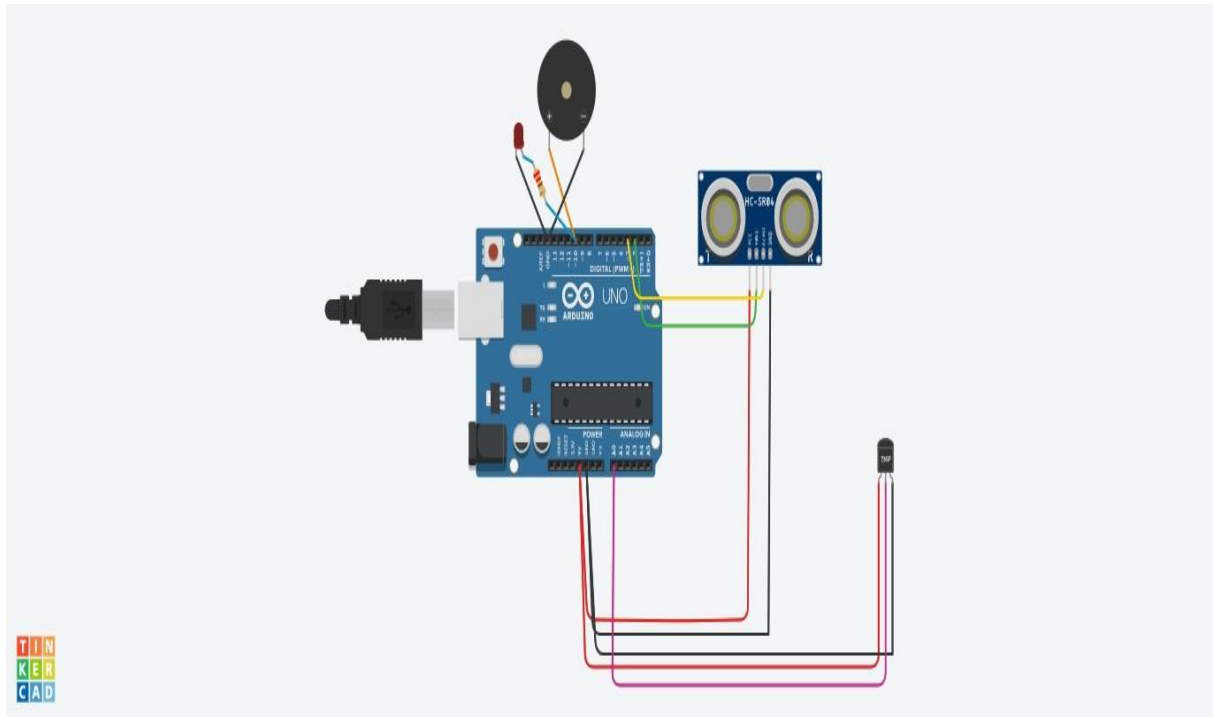
a = analogRead(A0);  double c
= (((a/1024)*5)-0.5)*100;

    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>

