

**Assignment -1**  
**Tinker Cad Circuit**

Assignment Date	12 September 2022
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Maximum Marks	2 Marks

Make a Smart Home in Tinker cad, using 2+ sensors, Led, Buzzer in single code and circuit.

**Solution:**

```
int baselineTemp = 0;
int celsius = 0;
int fahrenheit = 0;

void setup()
{
  pinMode(A0, INPUT);
  Serial.begin(9600);

  pinMode(2, OUTPUT);
  pinMode(3, OUTPUT);
  pinMode(4, OUTPUT);
}

void loop()
{
  baselineTemp = 40;

  celsius = map(((analogRead(A0) - 20) * 3.04), 0, 1023, -40, 125);

  fahrenheit = ((celsius * 9) / 5 + 32);
  Serial.print(celsius);
  Serial.print(" C, ");
  Serial.print(fahrenheit);
  Serial.println(" F");

  if (celsius < baselineTemp) {
    digitalWrite(2, LOW);
    digitalWrite(3, LOW);
    digitalWrite(4, LOW);
  }
  if (celsius >= baselineTemp && celsius < baselineTemp + 10) {
    digitalWrite(2, HIGH);
    digitalWrite(3, LOW);
    digitalWrite(4, LOW);
  }
  if (celsius >= baselineTemp + 10 && celsius < baselineTemp + 20) {
    digitalWrite(2, HIGH);
    digitalWrite(3, HIGH);
    digitalWrite(4, LOW);
  }
}
```

```
if (celsius >= baselineTemp + 20 && celsius < baselineTemp + 30) {  
    digitalWrite(2, HIGH);  
    digitalWrite(3, HIGH);  
    digitalWrite(4, HIGH);  
}  
if (celsius >= baselineTemp + 30) {  
    digitalWrite(2, HIGH);  
    digitalWrite(3, HIGH);  
    digitalWrite(4, HIGH);  
}  
delay(1000);  
}
```

Output

