ASSIGNMENT- 1

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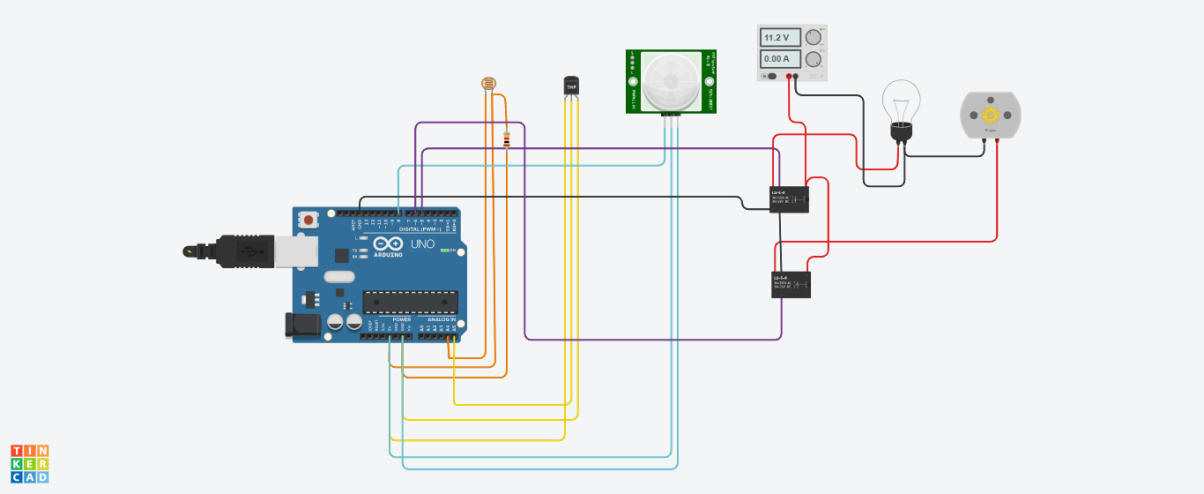
OBJECTIVE:-

Built a smart home in tinkercad. Using at least 2 sensors, led, buzzer in a circuit. Stimulate in a single code

COPONENTS USED:-

- Arduino
- PIR
- LDR
- LM35
- DC Power source
- Relay Board of 2 Channel



The sensors connected to the arduino board are LM35, PIR and LDR sensor. LM35 is used to sense the temperature level in the house while LDR sensor is to sense the light intensity. The data sensed by the sensors are then used as feedback for automatic control of home appliances. This only works when somebody is present in front of PIR sensor. Otherwise is turned OFF at all time.

CODE:-

```
float x,y,z,temp;

void setup()

{

 pinMode(8, INPUT);
```

```
 pinMode(5, OUTPUT);
 pinMode(6, OUTPUT);
 pinMode(A5, INPUT);
 pinMode(A4, INPUT);
Serial.begin(9600);
}
void loop()
{
 x= digitalRead(8);
 y= analogRead(A5);
 z= analogRead(A4);
 Serial.println(x);
 Serial.println(y);
 Serial.println(z);
 temp = (double)z / 1024;
 temp = temp * 5;
 temp = temp - 0.5;
 temp = temp * 100;
 if ( (x>0) )
 {
 if ((y<550)&&(temp>30))
 {
 digitalWrite(5, HIGH);
 digitalWrite(6, HIGH);
 }
 else if((y<550)&&(temp<30))
 {
 digitalWrite(5, HIGH);
```

```
digitalWrite(6, LOW);
}
else if((y>550)&&(temp>30))
{
digitalWrite(5, LOW);
digitalWrite(6, HIGH);
}
else if((y>550)&&(temp<30))
{
digitalWrite(5, LOW);
digitalWrite(6, LOW);
}
}
else
{
digitalWrite(5, LOW);
digitalWrite(6, LOW);
}
}
```

STIMULATION LINK:-

https://www.tinkercad.com/things/hesL7row3n1-smart-home-1/editel