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Problem statement :

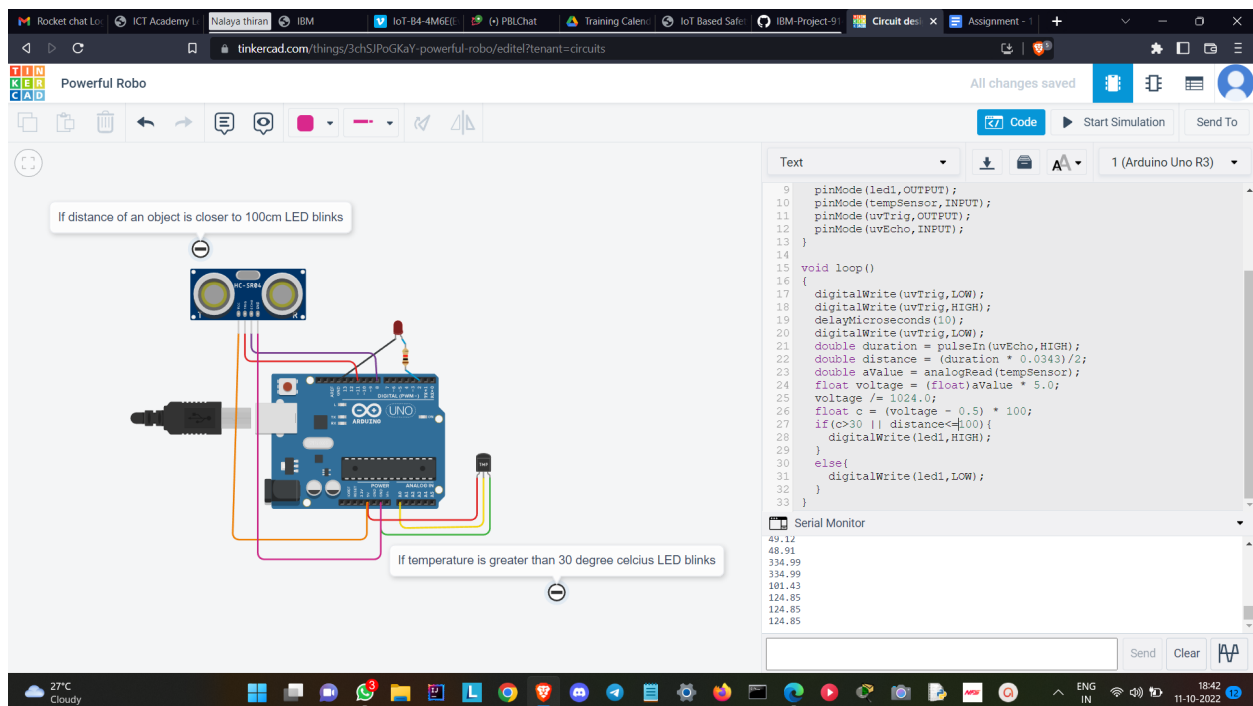Make a Smart Home in Tinkercad, using 2+ sensors, Led in single code and circuit.

Solution :

Used a UV sensor , temperature sensor and LED light.

When temperature is greater than 30 degrees , LED turns on

If any object closer to UV sensor in the range of [0,100] centimeters , LED turns on automatically.

Screenshot :

Code :

```cpp
// C++ code
//
int led1 = 2;
int tempSensor = A0;
int uvTrig = 11;
int uvEcho = 8;
void setup()
{
  pinMode(led1,OUTPUT);
```

```
  pinMode(tempSensor,INPUT);
  pinMode(uvTrig,OUTPUT);
  pinMode(uvEcho,INPUT);
}

void loop()
{
  digitalWrite(uvTrig,LOW);
  digitalWrite(uvTrig,HIGH);
  delayMicroseconds(10);
  digitalWrite(uvTrig,LOW);
  double duration = pulseIn(uvEcho,HIGH);
  double distance = (duration * 0.0343)/2;
  double aValue = analogRead(tempSensor);
  float voltage = (float)aValue * 5.0;
  voltage /= 1024.0;
  float c = (voltage - 0.5) * 100;
  if(c>30 || distance<=100){
    digitalWrite(led1,HIGH);
  }
  else{
    digitalWrite(led1,LOW);
  }
}
```