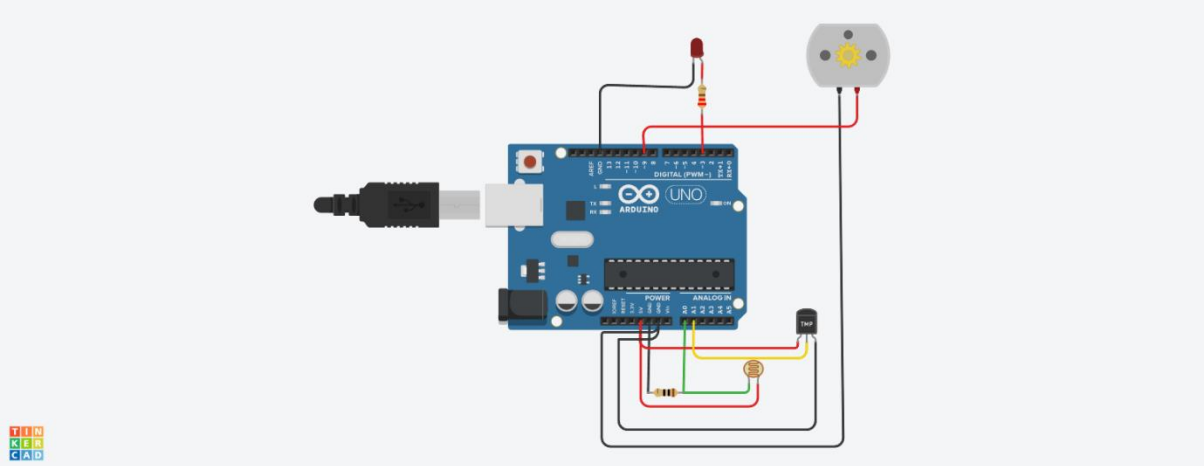
SMART HOME

Circuit:



Components required:

1. Arduino UNO
2. LED
3.Temperature Sensor
4. Resister – 10 Ω, 221 Ω
5. Photoresistor
6. DC motor (used in place of FAN)

Code:

```
int ldr=A0;//Set A0(Analog Input) for LDR.
int led = 3;
int value=0;
void setup() {
 Serial.begin(9600);
 pinMode(led,OUTPUT);  // initialize serial
 pinMode(9,OUTPUT);
 pinMode(A1,INPUT);
}
void loop(){
 float temperature;
```

```
temperature=analogRead(A1);
float tempmv=temperature*5000/1024;
float tempc=(tempmv/10)+(-50);
value=analogRead(ldr);//Reads the Value of LDR(light).
Serial.println("LDR value is :");//Prints the value of LDR to Serial Monitor.
Serial.println(value);
if(value<10)
{
digitalWrite(led,HIGH);//Makes the LED glow in Dark.
}
else
{
digitalWrite(led,LOW);//Turns the LED OFF in Light.
}
if(tempc<20)
{
  analogWrite(9,0);
  delay(1000);
}
 else if(tempc>20&&tempc<=25)
 {
   analogWrite(9,100);
   delay(1000);
 }
 else if(tempc>25&&tempc<=30)
 {
   analogWrite(9,150);
   delay(1000);
 }
 else
 {
   analogWrite(9,255);
```

```
    delay(1000);
  }
}
```