```cpp
int IR = 0;
int sensorValue = 0;
int reading = 0;
float voltage = 0.0;
float temperatureC = 0.0;


void setup()
{
  pinMode(9, OUTPUT);
  pinMode(A0, INPUT);
  pinMode(A1, INPUT);
  pinMode(9, OUTPUT);
  pinMode(A2, INPUT);
  pinMode(9, OUTPUT);


  Serial.begin(9600);
}
void loop()
{
  int sensor = digitalRead(IR);
  if (sensor==HIGH){
    digitalWrite(9,LOW);
  }
  else{
    digitalWrite(9,HIGH);
  }
  {
  sensorValue = analogRead(A2);
  Serial.println(sensorValue);
  analogWrite(9, map(sensorValue, 0, 1023, 0, 255));
  delay(100);
}
  {
    reading = analogRead(A2);
  voltage = (reading * 5.0) / 1024;
  temperatureC = (voltage - 0.5) * 100;
  Serial.print("Temperature is: ");
  Serial.print(temperatureC);
  Serial.println(" degree C");

}
}
```