Light

```
#define PIR 2
int ldr;
int bri;
int LDRvalue;
#include <LiquidCrystal_I2C_AvrI2C.h>
#include <LiquidCrystal_I2C.h>
LiquidCrystal_I2C_AvrI2C lcd(0x27, 16, 2);
float x, y;
float ldrdeger = 0;
int c1 = 0;
void setup() {


  pinMode(A0, INPUT);
  pinMode(3, OUTPUT);
  pinMode(2, INPUT);
  lcd.begin();
}
void loop() {

  ldr = analogRead(A0);
  delay(300);
  bri = map(ldr, 0, 1023, 0, 255);
  x = 5 * ldr / 150.0;
  c1 = (float)x * 100.0;
  lcd.setCursor (0, 0);
  lcd.print("Light Value");
  lcd.setCursor(0, 1);
  lcd.print(c1);
  lcd.print(" LUX ");

  int value_pir = digitalRead(PIR); // read input value

  Serial.println(value_pir);
  {
    if (digitalRead(PIR) == HIGH)
    {

      LDRvalue = map((A0), 0, 1024, 254, 0);
      analogWrite(3, bri);

    }
     if ( (c1 > 500) )
      digitalWrite(3, HIGH);

  }
}
```

CO_2

```
#include <LiquidCrystal_I2C_AvrI2C.h>
#include <LiquidCrystal_I2C.h>
const int gasPin = A1;
LiquidCrystal_I2C_AvrI2C lcd(0x27, 16, 2);
float t = 0;
int motor_pin = 8;
void setup()
{
  Serial.begin(9600);
  lcd.begin();
  lcd.backlight();
  pinMode(motor_pin, OUTPUT);
}

void loop()
{
  Serial.println(analogRead(gasPin));
  delay(1000);
  lcd.setCursor(0, 0);
  lcd.print(analogRead(gasPin));
  lcd.setCursor(0, 1);
  t = analogRead(A1);
  Serial.println(t);

  if ((analogRead(gasPin)) <= 130)
  {
    lcd.clear();
    lcd.setCursor(0, 0);
    lcd.print("CO2:");
    lcd.print (t + 870);
    lcd.print(" PPM");
    lcd.setCursor(0, 1);
    lcd.print("Clean Air");
    digitalWrite(motor_pin, LOW);
  }
  else if ((analogRead(gasPin)) >= 131)
  {
    lcd.clear();
    lcd.setCursor(0, 0);
    lcd.print("CO2:");
    lcd.print (t + 870);
    lcd.print(" PPM");
    lcd.setCursor(0, 1);
    lcd.print("Polluted Air");
    digitalWrite(motor_pin, HIGH);
  }
}
```

Temperature

```
#include <Wire.h>
#include <Adafruit_MLX90614.h>
#include <LiquidCrystal_I2C_AvrI2C.h>
#include <LiquidCrystal_I2C.h>
int light = 3;
Adafruit_MLX90614 mlx = Adafruit_MLX90614();
LiquidCrystal_I2C_AvrI2C lcd(0x27, 16, 2);
void setup() {
  Serial.begin(9600);
  lcd.begin();
  lcd.backlight();
  Serial.println("Adafruit MLX90614 test");
  pinMode(light, OUTPUT);
  mlx.begin();
}

void loop() {
  Serial.print("Ambient = ");
Serial.print(mlx.readAmbientTempC());
  Serial.print("*C\tObject = ");
Serial.print(mlx.readObjectTempC());
Serial.println("*C");
  Serial.print("Ambient = ");
Serial.print(mlx.readAmbientTempF());
  Serial.print("*F\tObject = ");
Serial.print(mlx.readObjectTempF());
Serial.println("*F");
  lcd.setCursor(0, 0);
  lcd.print("Body Temperature");
  lcd.setCursor(0, 1);
  lcd.print(mlx.readObjectTempC());
  lcd.print("*C");
  Serial.println();
  delay(2000);

  if ((mlx.readObjectTempC()) >= 37)

  {
    digitalWrite(light, HIGH);

  }

  else {
    digitalWrite(light, LOW);
  }
}
```