

ASSIGNMENT 1

Assignment Date	19 September 2022
Student Name	Dhanushiya C
Student Roll Number	920219106005
Maximum Marks	2 Marks

Question-1:

Home automation with 2 or more sensors with IOT

Solution:

```
#include <Int ledPin = 11;

Int PIRpin = 8;

Int pirState = LOW;

Int val = 0; // photocell circuit

Int photocellPin = 0;

Int photocellReading;

LiquidCrystal lcd(2, 3, 4, 5, 6, 7);

Void setup()

{

  pinMode(ledPin, OUTPUT);

  pinMode(PIRpin, INPUT);

  pinMode(photocellPin, INPUT);

  Serial.begin(9600);

  Lcd.begin(16, 2);

  Lcd.setCursor(2, 0);

  Lcd.print("P.I.R Motion ");

  Lcd.setCursor(0, 1);
```

```
Lcd.print("and Light Sensors");

Delay(2000); // wait 2s

Delay(2000);

Lcd.clear();

Lcd.setCursor(0, 0);

Lcd.print("Processing Data.");

Delay(3000);

Lcd.clear();

Lcd.setCursor(3, 0);

Lcd.print("No Motion ");

Lcd.setCursor(3, 1);

Lcd.print("Waiting !");

}

Void loop()

{

Val = digitalRead(PIRpin);

photocellReading = analogRead(photocellPin);

if (val == HIGH)

{

digitalWrite(ledPin, HIGH);

delay(150);

if (pirState == LOW)

{

Serial.println("Motion detected!");

Lcd.clear() ;
```

```

    Lcd.setCursor(0, 0);

    Lcd.print("Motion Detected!");

    Lcd.setCursor(0, 1);

    Lcd.print(photocellReading);

    pirState = HIGH;

    delay(5000) ;

}

}

else

{

    digitalWrite(ledPin, LOW);

    scrollScreenSaver() ;

    if (pirState == HIGH)

    {

        pirState = LOW;

    }

}

}

Void scrollScreenSaver()

{

    Lcd.clear() ;

    Lcd.setCursor(15, 0);

    Lcd.print("No Motion ");

    Lcd.setCursor(15, 1);

    Lcd.print("Waiting !");

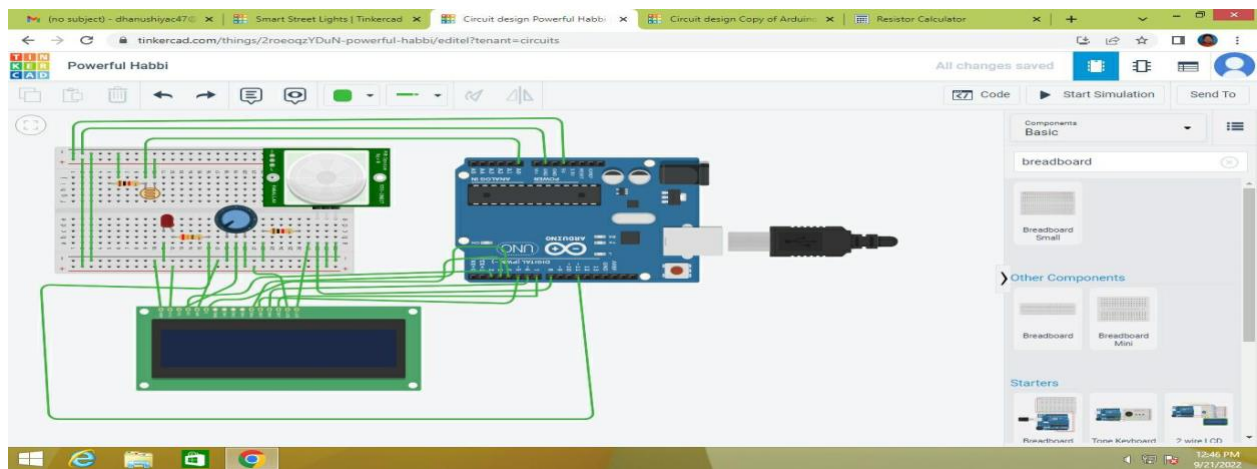
```

```

For (int positionCounter = 0;
positionCounter < 22; positionCounter++)
{
    Lcd.scrollDisplayLeft();
    Delay(150);
}
}

```

Circuit:



Output:

