Project Development Phase

Sprint - 3 (Intrusion System)

Date	15 October 2022
Team ID	PNT2022TMID00408
Project Name	SmartFarmer - IoT Based Smart Farming Application

Aim:

To design and development an intrusion system based motion using tinkercad application and arduino.

Apparatus required :

- Breadboard - Small
- Arduino UNO R3
- LCD 16x2
- Potentiometer
- PIR Sensor
- Piezo
- Resistor
- Wires

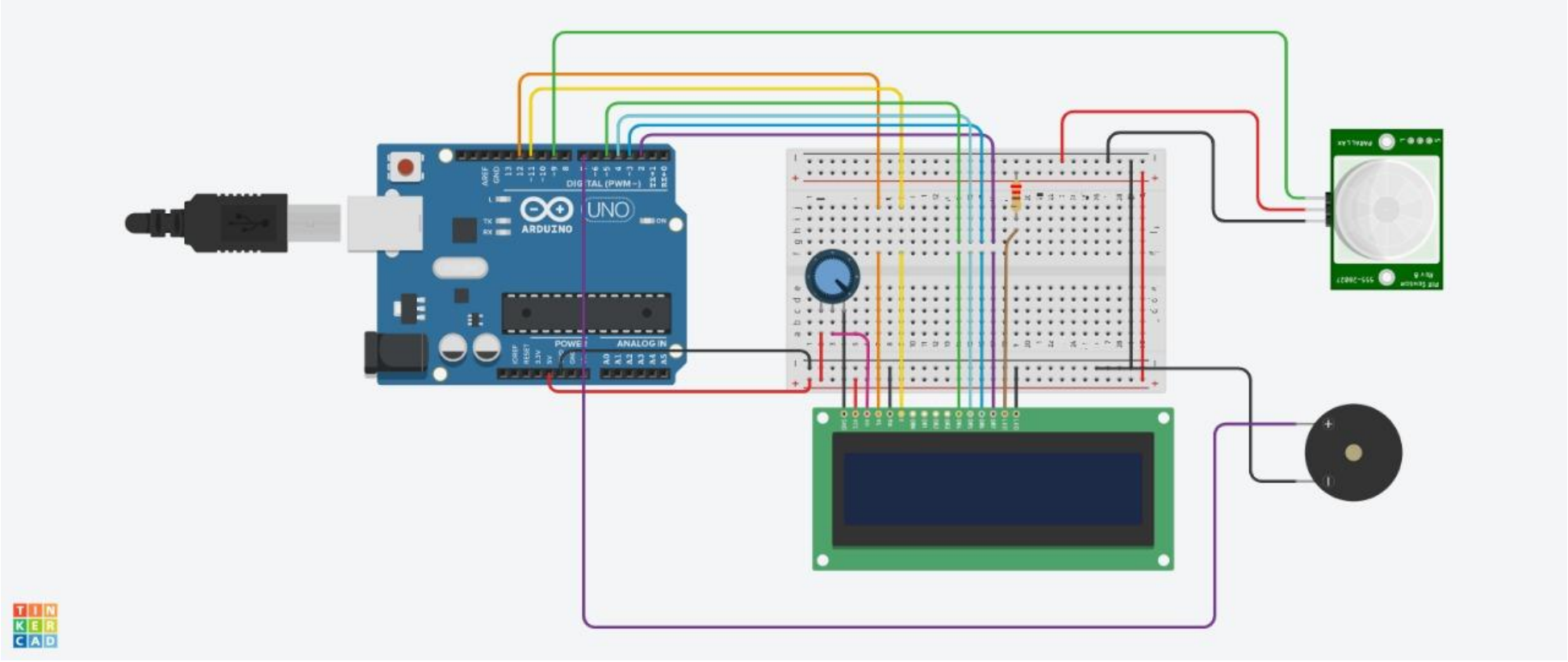
Program :

```
#include <LiquidCrystal.h>

LiquidCrystal lcd(12, 11, 5, 4, 3, 2);

int sensor = 9;  // the pin that the sensor is attached to

int state = LOW; // by default, no motion detected

int val = 0;

int buzzer= 7;  // the pin that the buzzer is attached to

void setup()

{

  pinMode(sensor, INPUT);     // initialize sensor as an input

  pinMode(buzzer, OUTPUT); //initialize buzzer as an OUTPUT

  lcd.begin(16, 2);
```

```
  lcd.print("TechnicalUpdate");
}
void loop()
{
  val = digitalRead(sensor);   // read sensor value
  if (val == HIGH)
  {
  delay(100);                // delay 100 milliseconds
            if (state == LOW)
            {
            lcd.setCursor(0, 1);
            lcd.print("Motion Detected!");
            digitalWrite(buzzer, HIGH);   // turn the LED/Buzz ON
            state = HIGH;              // update variable state to HIGH
            }
```

```
        }
  else
   {
        delay(200);             // delay 200 milliseconds
        if (state == HIGH)
        {
        lcd.setCursor(0, 1);
        lcd.print("Motion Stopped!");
        digitalWrite(buzzer, LOW);   // turn the Buzzer ON
        state = LOW;            // update variable state to LOW
        }
   }
}
```

Output :



Result :

Thus, to design and development an intrusion system based motion using tinkercad application and arduino has been successfully completed.