# APPENDIX

int sensor Pin =A0; float voltage;

float Vref = 5.0;

#include <Liquid Crystal. h>

Const int rs = 12, en = 11, d4 = 5, d5 = 4, d6 = 3, d7=2; Liquid Crystal lcd (rs, en, d4, d5, d6, d7);

const int irSensor Pin=6; int count = 0;

void setup() {

Serial.begin(9600); // initialize serial communication at 9600 bits per second lcd.begin(16, 2);

pinMode(irSensorPin, INPUT);

}

void loop() {

int sensorReading = analogRead(sensorPin); // read the sensor value

voltage = (sensorReading \* Vref) / 201; // convert the sensor value to voltage Serial.print("Voltage: ");

Serial.print(voltage); Serial.println(" V"); delay(1000); // wait for a second lcd.setCursor(0, 0); lcd.print("voltage:"); lcd.setCursor(9, 0); lcd.print(voltage);

int sensorValue = digitalRead(irSensorPin);

// Check if an object is detected if (sensorValue == LOW) {

// Increment count count++; delay(1000);

// Print count to serial monitor Serial.print("Count: "); Serial.println(count); lcd.setCursor(0, 1); lcd.print("Count:"); lcd.setCursor(7, 1); lcd.print(count);

}

// Add a small delay to debounce the sensor

delay (50);

}