CIS-033-53082 Robotics and Embedded System

Lab 3 LCD Yizhe Wang 06/17/2023 Summer 2023

- Task 1.

Write a program to display your name on the first line of the LCD and the class name on the second line of the LCD. The code can be written in setup part.

Code:(this is using the serial lcd)

```
#include <Wire.h> //lcd
// include LiquidCrystal library which allows to control I2C displays
#include <LiquidCrystal_I2C.h>
#include <string.h>
LiquidCrystal_I2C lcd(0x27, 16, 2);
char student_name[] = "Yizhe Wang  ";
char class_name[] = "Robo & Embed Sys";
int time = 250;
void setup()
{
    lcd.init(); // initialize the lcd
    lcd.backlight();
    lcd.begin(16, 2);
    lcd.setCursor(0,0);
    lcd.print(student_name);
    lcd.setCursor(0,1);
    lcd.print(class_name);
}
void loop() {}
```

Unsaved – sketch_jun17a.ino

Setup:(this is using serial lcd)

Task 2.

Write a program to scroll your name (or the phrase "Hello World") to the left. This must be done continuously.

Code:(Using parallel lcd)

```ino
#include <LiquidCrystal.h>
#include <string.h>
char str[] = "Yizhe Wang";
int time = 250;

LiquidCrystal lcd(4, 6, 10, 11, 12, 13);

void setup() {
  lcd.begin(16, 2);
}

void loop() {
  lcd.setCursor(16, 0);
  for (int pos = 0; pos < 16; pos++) {
    lcd.scrollDisplayLeft();
    char c = pos >= strlen(str) ? ' ' : str[pos];
    lcd.print(c);
    delay(time);
  }
  lcd.clear();
}
```

Setup:(Using parallel lcd)