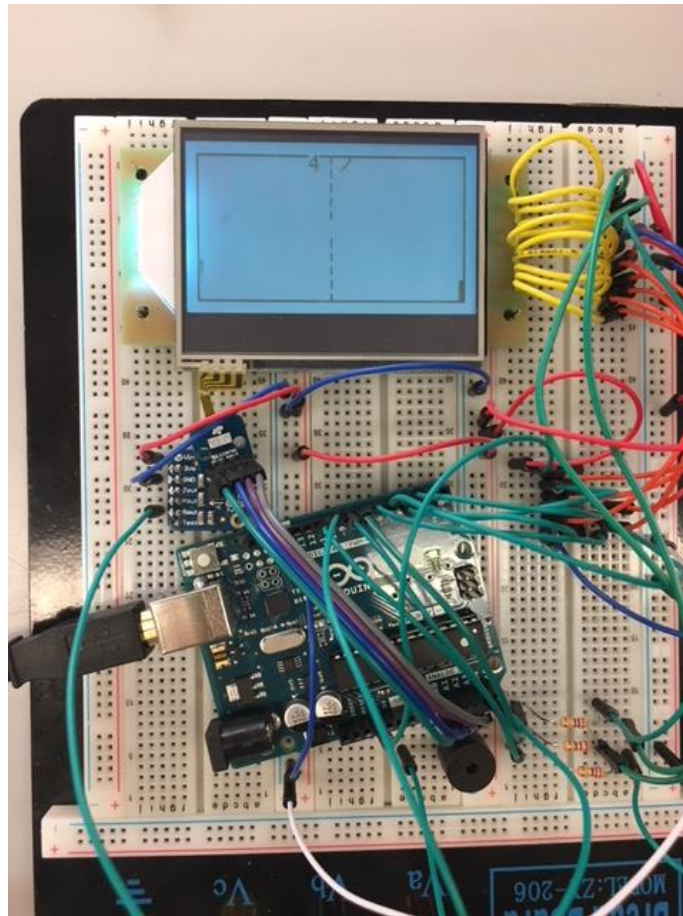


Group1 Lab4 Report:



PreLab completion steps:

1. Soldering the boards
2. Connecting the lcd to the Arduino as described in the handout
3. Using starter code to flush the lcd.

Part1 completion steps:

1. Understand each function's functionality
2. Search for resources complete each function
3. Test results by drawing on the lcd

Part2 completion steps:

1. Stick the touch screen right on top of the lcd
2. Connecting the touch screen through the breakout board and the aduino through PC0 to PC3
3. Reading signals from the touch screen to get raw x and y
4. We have chosen a prescaler of 1/32
5. The way to calibrate x, y is to use the generic algorithm.

6. We selected 3 points, (0,0), (127,0), and (127, 63) with their corresponding raw x and y to calculate A,B,C,D,E,F.

Part3 completion steps:

1. Get the starter code functions.
2. Complete each one of them
3. Add necessary addon functions
4. Declare necessary variables
5. Each function is explained in the ReadMe, so I do not repeat here

Part4 completion steps:

1. Interface the Accelerometer with Arduino
2. On game startup, put the entire circuitry on ground level, read 50 consecutive values from Accelerometer, finding the max and the min raw value. Set them as boundary decisions.
3. The result is amazingly smooth when moving up and down the paddle.
4. The decision boundary will reset itself during a game startup.