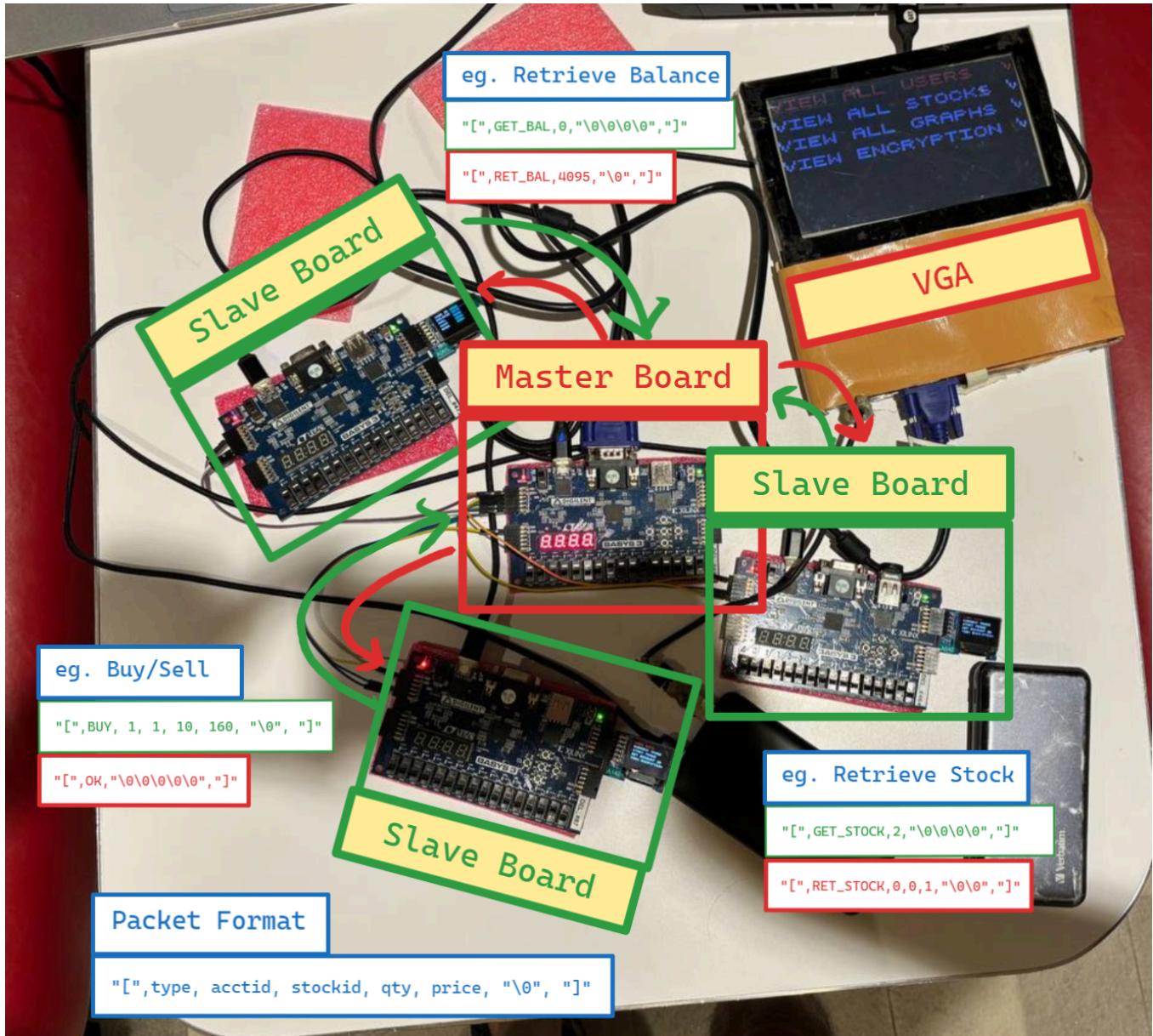


EE2026 Finance Bros Elaboration

This section is purely for anyone who wants a deeper understanding of our program and **does not have to be read**.

This section is to help better understand the flow of our program (as we feel it is quite complicated)
It is possible to use the program & grade without reading this section, but this would hopefully clarify any doubts.

Architecture



Pinouts: JA1, JA2 (rx0, tx0), JA3, JA4 (rx1, tx1), JA7,JA8(rx2, tx2)

rx0 and tx0 of the slave boards would connect to the tx<num> and rx<num> on the master board respectively.
The boards would be grounded

OLED is connected to JB on all boards. VGA can be connected to any board for OLED mirroring, but should

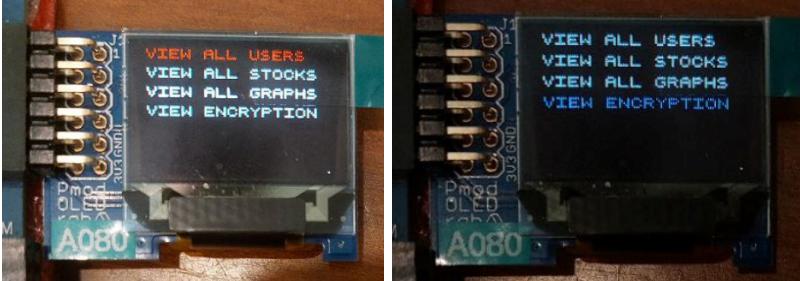
ideally be connected to the master board for displaying graphs

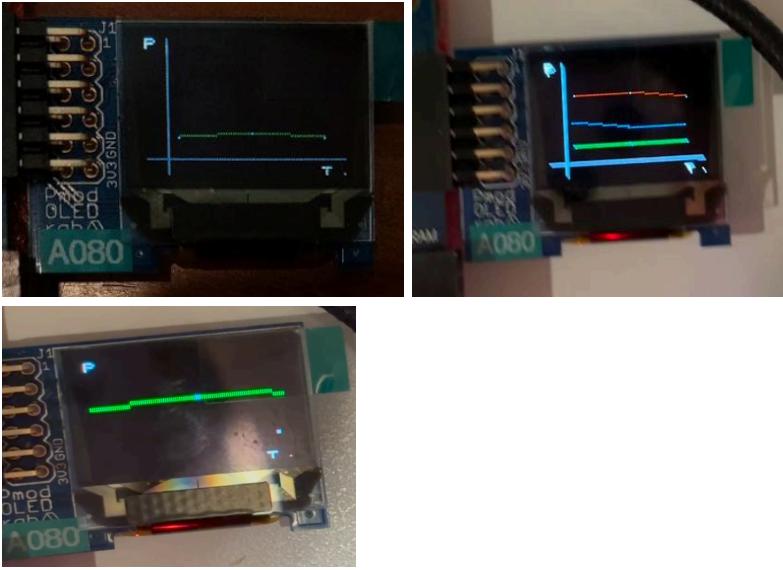
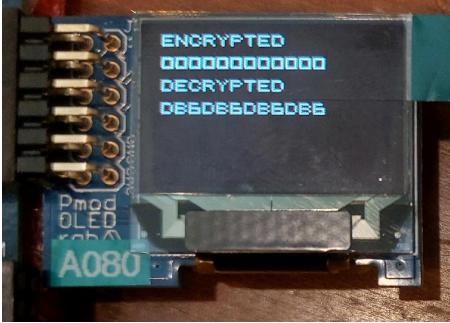
Navigation

Overview

Name	Screen(s)	Controls
Start Page		sw[0] : Master Mode sw[1] : Trader/ Slave Mode sw[2] : Money Simulation Mode The switch with the lower number takes priority
VGA Display		sw[3] : Toggle VGA between Mirroring OLED & Displaying Graphs

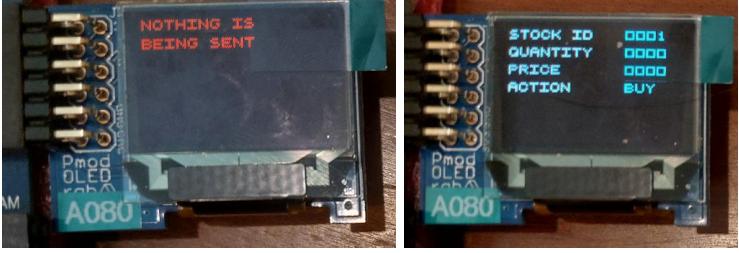
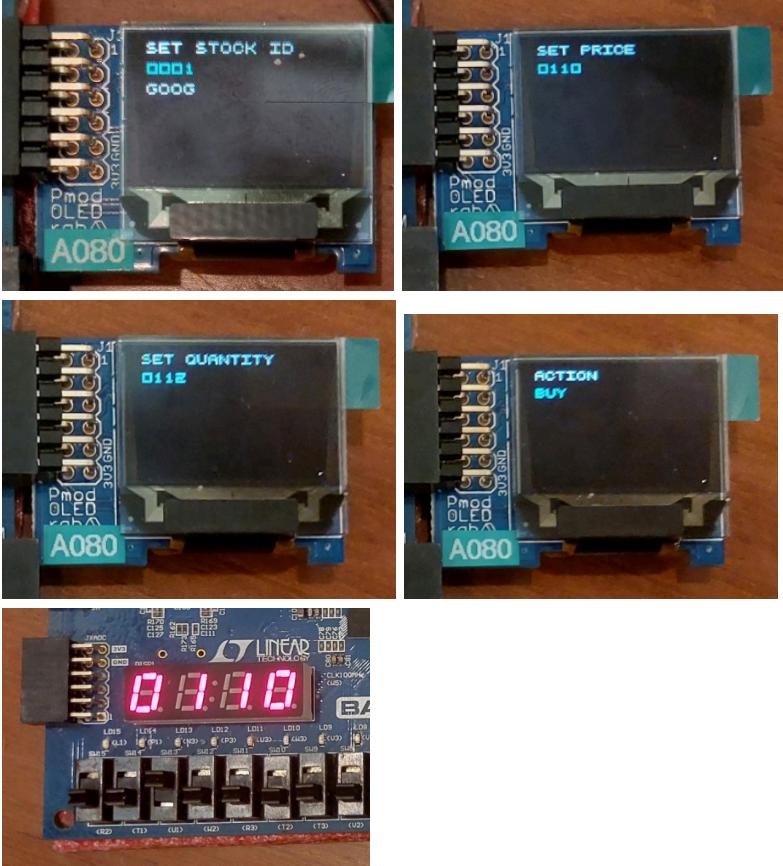
Master Mode - **sw[0]**

Name	Screen(s)	Controls
Master Main Menu		btnU(btnD) : Change Option btnC : Select Option
Option 1 - Users Page		btnL/R : Cycle between users 0 to 2 btnC : Go Back

Option 2 - Stock Prices Page		btnC: Go Back
Option 3 - Graphs		<p>btnL/R: Cycle between users 0 to 2, and show all graphs (with flickering) btnC: Go Back</p> <p>Mouse Mouse Cursor is a Purple Dot Moving the mouse cursor and Right clicking on any section in the graph would allow the display to zoom in. The zoom factor would follow the position of the mouse cursor. Left Click would exit zoom The zoomed view on the graph updates dynamically without the need to zoom out first. The frame adjusts instantly to the cursor's new position.</p>
Option 4 - Encryption		btnC: Go Back

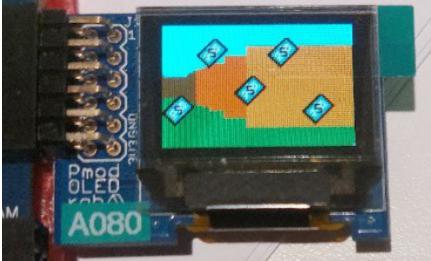
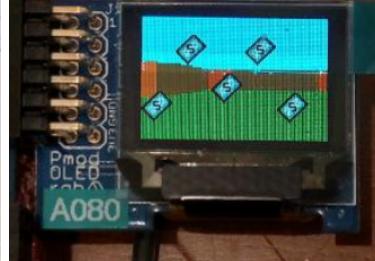
Slave Mode - **sw[1]**

Name	Screen(s)	Controls
Master Main Menu		btnU/btnD: Change Option btnC: Select Option

Option 1 - Getting User Info		btnL: Force Exit btnC: Go Back (After Info has loaded)
Option 2 - Current Trade		btnC: Go Back
Option 3 - Start Trade		OLED/ 7 Segment: Display Numerical Value btnU/D: Increase/ Decrease Numbers sw[15]: Increase by 1000 sw[14]: Increase by 100 sw[13]: Increase by 10 else: Increase by 1 btnL/R: Change between Buy and Sell btnC: Go Back

Option 4 - Set Account ID		OLED/ 7 Segment: Display Numerical Value btnU/D: Increase/ Decrease Numbers btnC: Go Back
Option 5 - Encryption		btnC: Go Back
Green Screen		Showed when a buy/sell operation is successful If it is not successful, the operation would keep being sent

Animation - sw[2]

Name	Screen(s)	Controls
Money Simulation	 	btnL, btnR: Rotate left and right btnU, btnD: Move forward and back btnC: Hide money bills (why would you do it?)