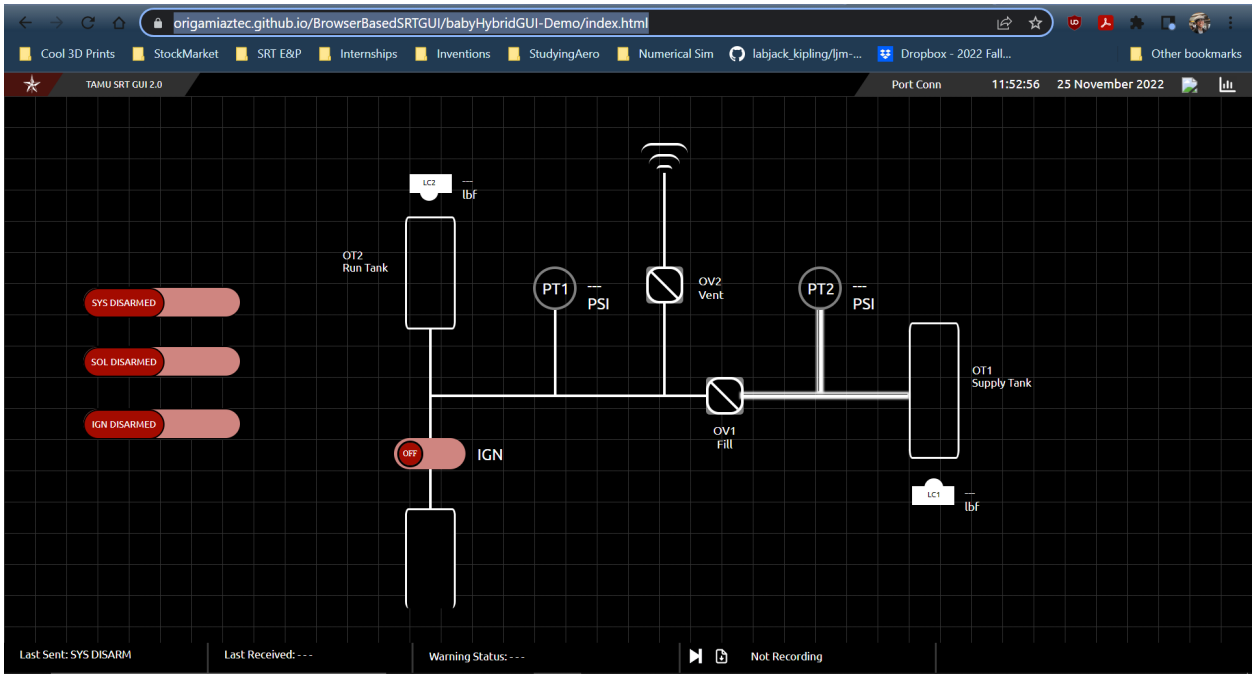


Objective of GUI - The GUI for operational cold flows and launch days should be minimalistic, make it easy to control solenoids, easy to update, increase safety, and eventually automate the nitrous oxide fill sequence.

Important Note - The GUI still can't read data from labjack. Our team hasn't figured out a nice way to read data from the labjack with Python OR Javascript. If anyone can get either to work, automated filling can actually make progress!!

Link to demo -
https://origamiaztec.github.io/BrowserBasedSRTGUI/babyHybridGUI-Demo/index.html

Link to github repo with code -
https://github.com/OrigamiAztec/BrowserBasedSRTGUI

Software PreRequisites:

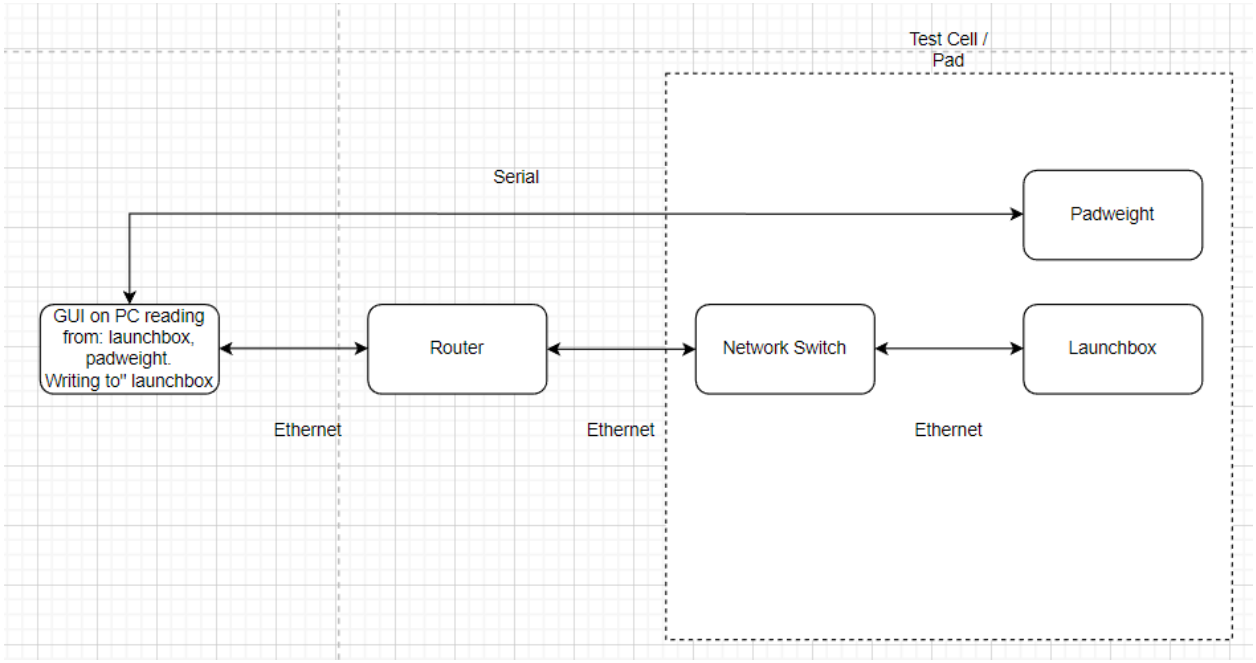
Visual Studio Code for write code in a pretty IDE - https://code.visualstudio.com/download
PuTTY for diagnosing issues, checking if ethernet or serial is reading correctly - https://www.putty.org/
Install node js to be able to communicate browser with serial and ethernet - https://nodejs.org/en/download/
Install "http" npm package - https://www.npmjs.com/package/http or `npm i http`
Install "express" npm package - https://www.npmjs.com/package/express or `npm i express`

Install “socket.io” npm package -https://www.npmjs.com/package/socket.io or `npm i socket.io`
Install “serialport” npm package - https://www.npmjs.com/package/serialport or `npm i serialport`

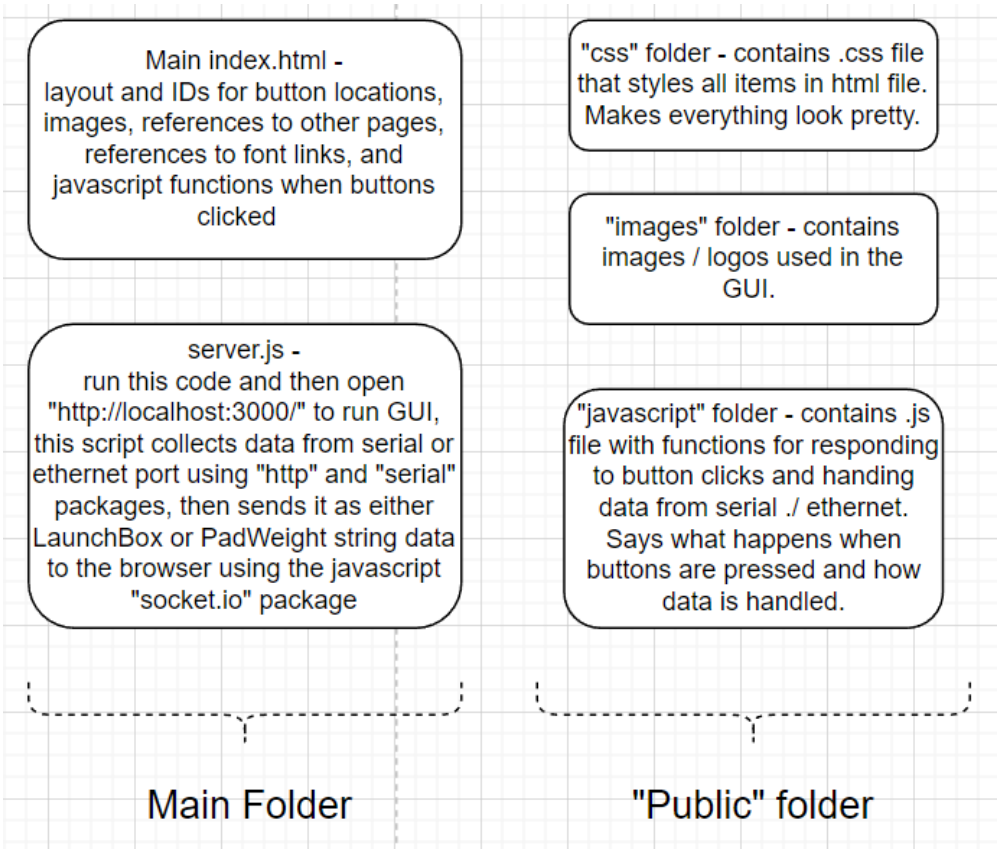
Relevant Youtube videos / tutorials for troubleshooting:

https://www.youtube.com/watch?v=uVnKfNmUuMo&list=FLKBMxJnMFzg-HHeEQJHzYBQ&index=1
https://www.youtube.com/watch?v=-L3oSsjFYh0&list=FLKBMxJnMFzg-HHeEQJHzYBQ&index=2
https://www.youtube.com/watch?v=gQYsUjT-IBo&t=1183s

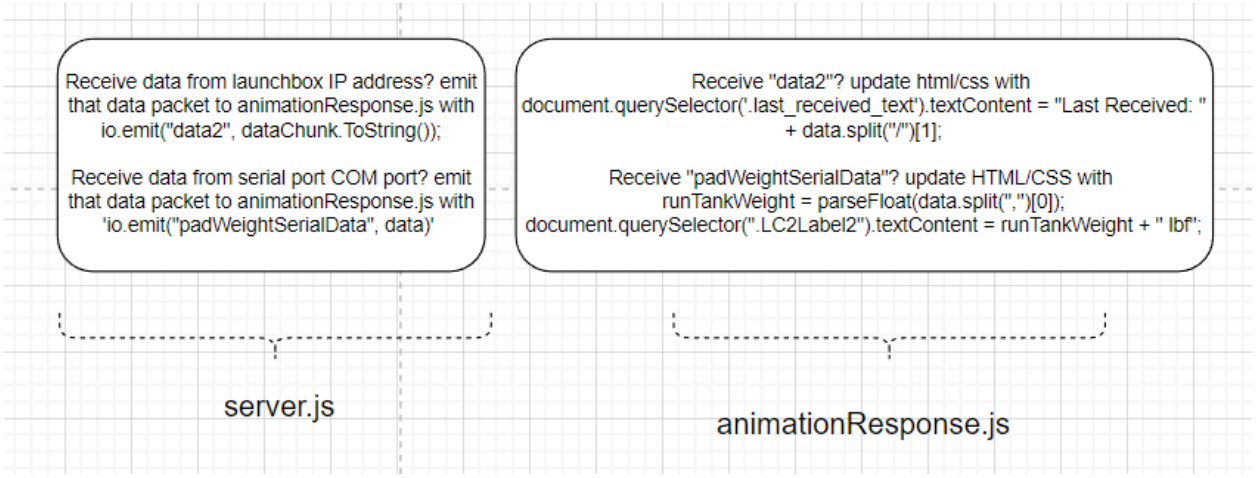
Overall Hardware Layout - this is what’s worked most recently to hot fire baby hybrid -



GUI File Organization:



Javascript Data Processing Summary:



Code Breakdown:

Server.js