# Spring 2024 Engineering Notebook

Ian Wolfe’s Work

1/11

* Sent out When2meet for Rojas meeting
* Discussed initial plan for the semester as a group
* Wrote email to Rojas to try to set up a recurring meeting

1/12

* Created simple python program to turn TLE into azimuth and elevation

1/16

* Updated product vision as a group
* Updated GitHub page for new semester (removing old docs and links & adding current stuff)
* Researched Geostationary satellites to test software

1/17

* Fixed math with python program
* Added UI for program

1/23

* Updated Rojas by email with our current progress and outlook for the project

1/25

* Answered Rojas’s concerns with email update to help us better identify his needs as the product owner
* Rojas granted us access to a lab in the LB
* Met with JT (Rojas’s Research Assistant) to catch him up on our project and get direction from him on how he would like us to proceed

1/30

* Talked as a team to divide up work and address the goals that JT set for us
* Researched questions related to the RF side of the project that we hadn’t started to address yet

2/1

* As a group, we updated Senior Design professors on current state of project (positioner waiting on department, contingencies, and new direction from JT)
* Briefly attempted SDR testing, but ran out of time

2/6

* Successfully tested personal SDR and SDR software by using an FPGA as an AM radio

2/7

* Made my slides for tomorrow’s presentation

2/8

* Group presentation at IC

2/13

* Reassessed our plan as a group since we heard from Rojas that we would definitely not be receiving a new positioner

2/15

* Used Jared and Christian’s Trello backlog to start specific tasks for Sprint 2
* Researched Matlab applications for using ADALM-PLUTO SDR
* Tried to test Pluto SDR to varying levels of little success with Jared

2/20

* Jared and I worked on SDR things: software and hardware compatibility
* I showed Jared SDR# on my computer and we want to use it for the PLUTO as well

2/22

* Jared and I set up a new SDR software that is more user friendly
* I used an FPGA to make a test radio signal
* We also found a tracking software to use: SatPC32

2/27

* Worked with Jared on the tracking software to make sure we can track our desired satellites
* We also tested the SDR more trying to fix some of the issues we’re having

2/29

* Worked on getting ready for sprint demo

3/3

* Worked on documentation with everyone; mainly the software documentation

3/5

* Sprint 2 demo

3/7

* Mainly developed backlog for final sprint and what each of us could work on

3/19

* Clay and I met with the TAs then went to the lab, did research and talked about what the TAs wanted with our documentation

3/21

* Worked with Clay to help with his demodulation research because there wasn’t anything for us to do without hardware

3/26

* I was sick so I didn’t go to class

3/28

* Tested the SDR directly with the antenna, we picked up some WiFi signals, but nothing significant

4/2

* Talked to TA about documentation

4/4

* Clay and I tried to put all the tracking hardware together, but the cables for the positioner were the wrong size

4/9

* Worked on putting positioner together and discussing plan with team

4/10

* Met with group in afternoon to work on hardware
* Jared and I worked on the positioner, but ran into compatibility issues

4//11

* Continued to work on problem-solving the positioner controller compatibility with Jared

4/14

* Fixed formatting errors on SRS,SDD, and Test Plan and submitted them