emStart Final Status Report

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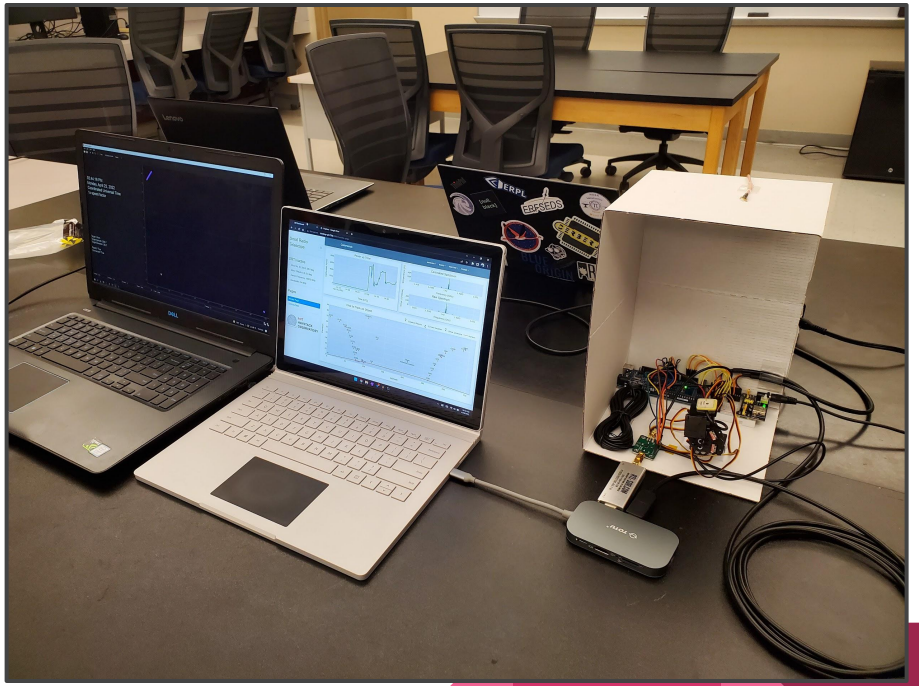
Project Recap

Background Recap

- Emulating system for an existing small radio telescope (SRT) in order to verify its operation as expected this includes its mechanical movement and radio.
- As an additional requirement is it must also emulate the rotation of the earth during testing.

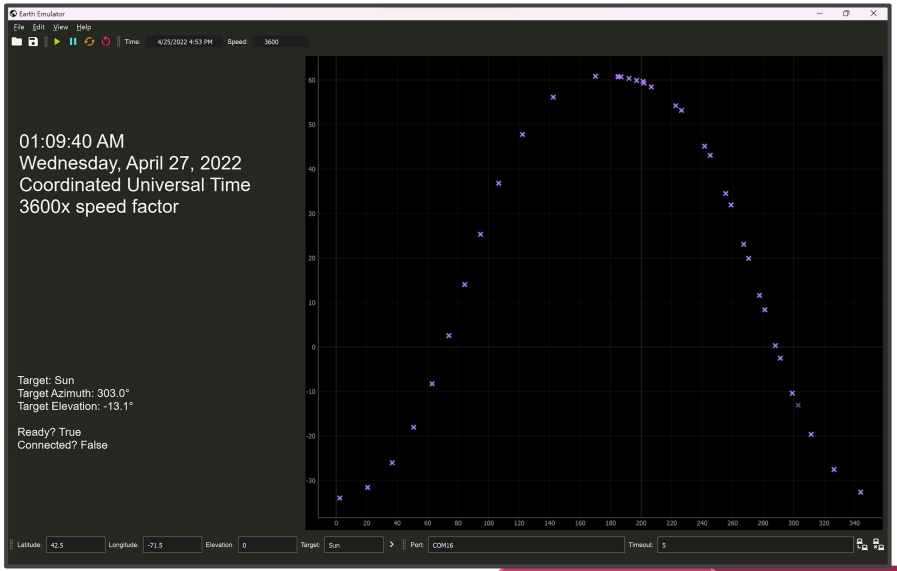
Hardware Achievements

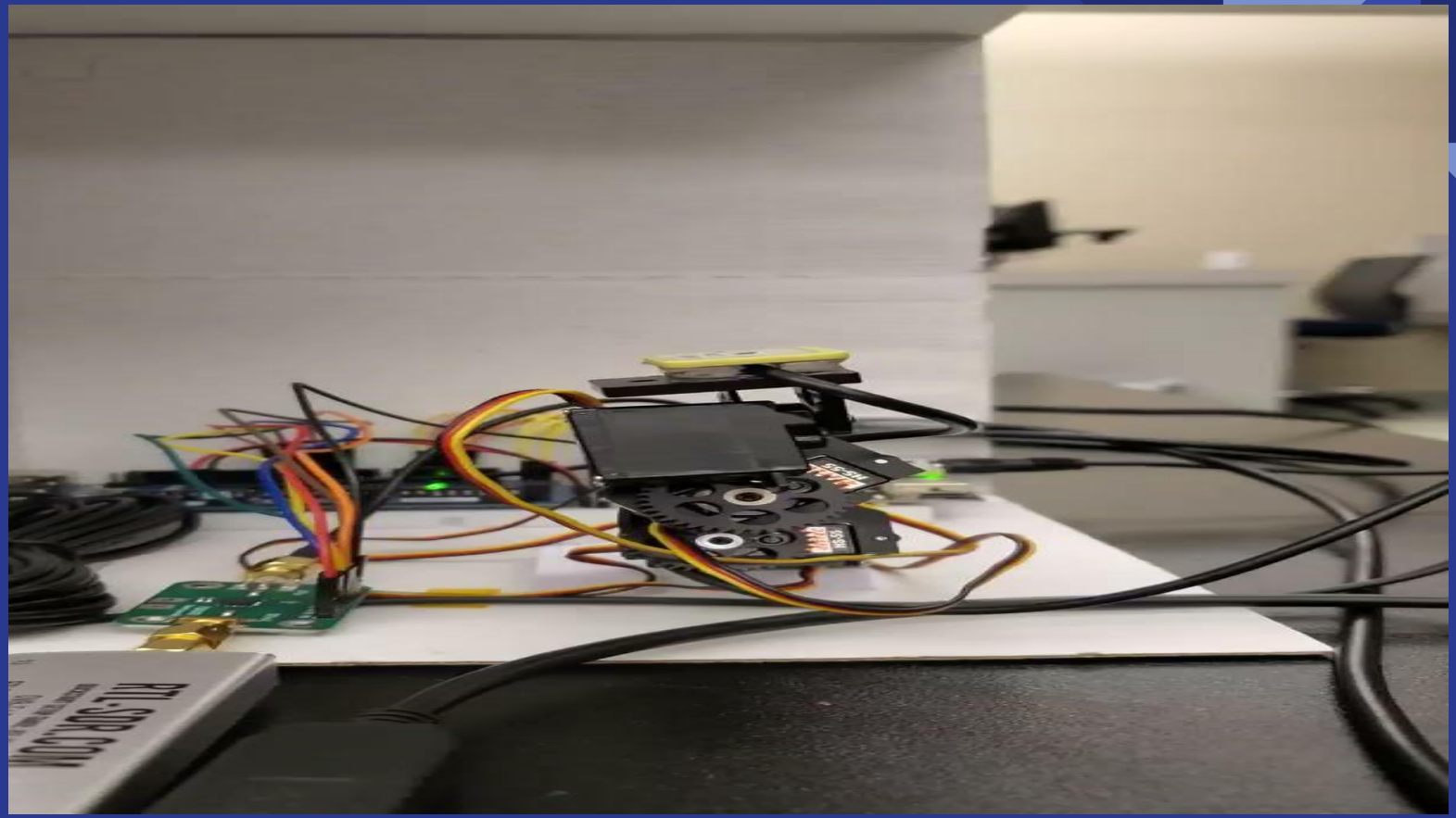
- The system has been fully assembled into a compact form for easy transportation and storage.
- All final preparations have been completed for the full operation of the system as a final product.
- Attenuator has been connected to the system in order to adjust the incoming RF signal to emulated values.



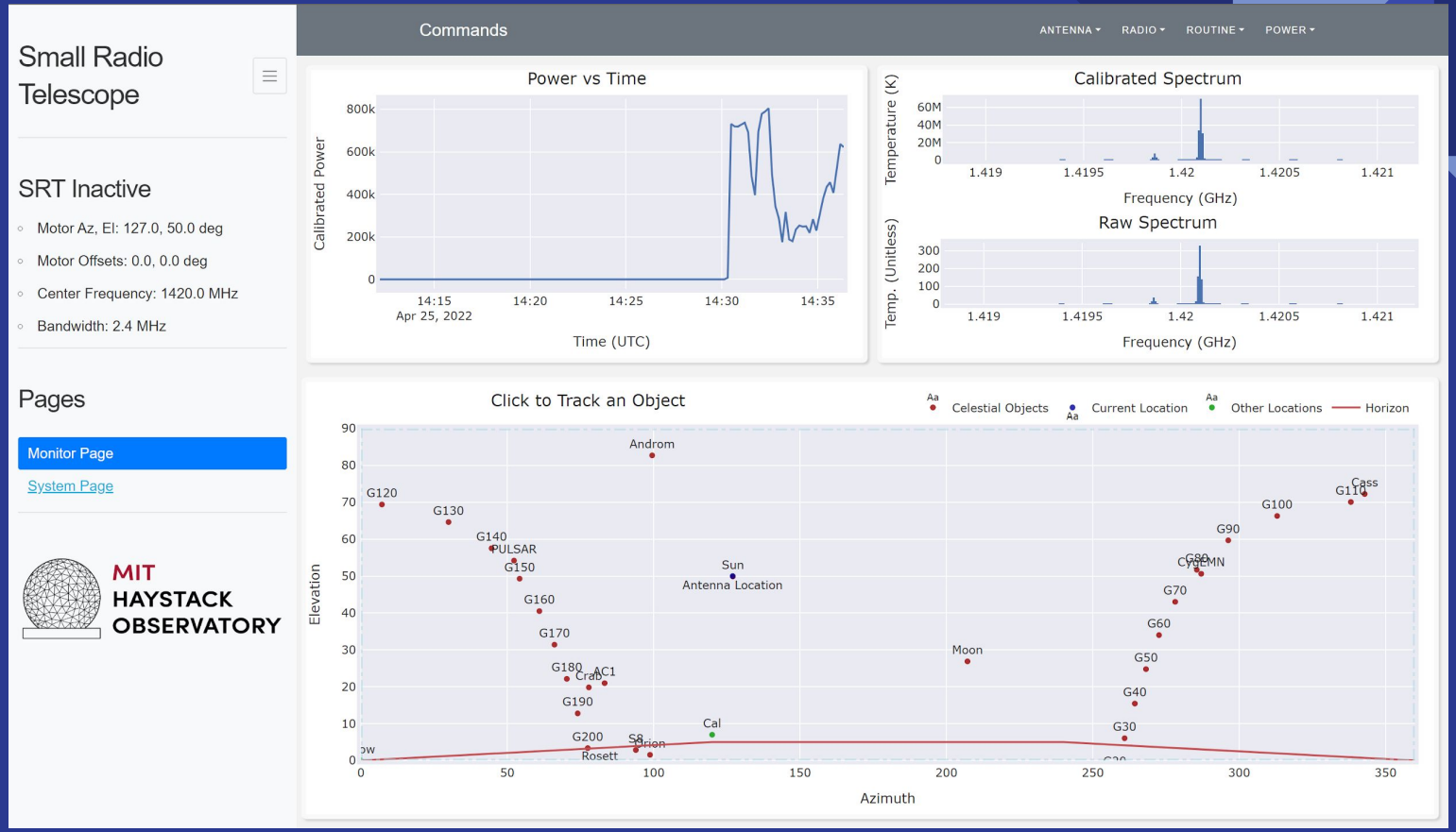
Software Achievements

- The Earth controller software has an optimized and improved user interface that is much clearer.
- The ROT2Prog interface has been tested using the SRT hardware.
- The attenuator code decreases the signal strength when the rotator is not pointing towards the target.
- The system is fully operational from a software perspective.





N Point Scan



N Point Scan Graph

Final Demo

Future Goals

- Tune the attenuator for greater accuracy
- Implement time-syncing in the SRT software to improve flexibility
- Further simplification of hardware requirements

Questions?