1. What should success look like?

* Establishing a Graphical User Interface (GUI)
  + Research possible GUIs to use
    - Determine what inputs will be necessary for my GUI and what will be accessory.
    - Use an established GUI or rewrite an existing one
  + The graphical interface should take in a variety of information to track the ecliptic of an object
    - Latitude/longitude
    - Right ascension and declination
    - Azimuth/zenith
  + Determine how the information will be processed and how python will translate the input variables to x and y motor controls.
* Implement a Raspberry Pi for the GUI to run on and act as a master for the Arduino
  + Run the GUI on the Raspberry Pi on Python script
  + Implement a communication protocol between the Pi and the Arduino
    - Probably I2C, need to be confident this outline will work as planned prior to making a firm choice
    - Learn about communication protocol.
  + Write a program to interpret the information from the GUI to steps for the motor to be sent and interpreted by the Arduino
  + Error protocols should be established to process any unexpected anomalies in the feedback routines.
* Successful completion of this project will entail having a functional motor/sensor relay system for the gear mechanics
  + An Arduino microcontroller and the components it interacts with (e.g. sensors and motor switches) should be soldered to a PCB.
    - Code for the Arduino should be dynamic enough to accept a variety of functions to perform different tasks.
  + Motor switches should be mounted to a board or plate
  + Said wiring should be sealed in a waterproof box.
  + Gear system should be “safe” from any unexpected accident or error so as not to damage the equipment.
    - Some sort of safety system will need to be implemented either in code, hardware, or both to prevent damage resulting from limit switch sensory error.

1. What don't I know? What questions do I need to ask? What information/skills do I need to learn?

* I’ll need to become more familiar with OSF, Arduino, Python, GUIs, SDRs.
  + Documentation is one of my biggest shortcoming, so learning OSF and Markdown will be an important part of the successful completion of my goals for this research.
  + Though I have had some experience with Python I have not implemented a program of this caliber before. Familiarizing myself with Python and learning how a GUI works from the software end will be essential.
* I need to learn about communication protocols between different ICBs.
  + I have not used an I2C protocol before and will need to learn how to run commands in this or a similar communication protocol routine.
* Above all, I need to learn radio astronomy!
  + I am still unfamiliar with the fundamentals of astronomy that will be necessary for the structure of this project. Tracking the ecliptic is the most important astronomy need right now.