Team: Movin On   Engineer: Matthew Gould

What were the outcomes of the prior phase?

1. **What did I plan to do?**
- Finish motor research
- Offer a final list of motors for purchase
- Create a test stand for testing FSR control systems and run initial tests to determine feasibility
- Follow up with FSR manufacturer and get quote for preliminary custom orders
- get motor data sheets or come up with setup to experimentally determine motor parameters.
2. **What did I do?**
- Completed motor research
- found motor that met specifications
- began tracking down an American supplier for said motor
- determined matrix of off the shelf FSRs was better than custom
- determined preliminary electrical system architecture
- continued to research FOC motor controls
- started looking into applicable standards that project could try to meet to get IEEE grant
- Found the DSC that met computational, IO, PWM, and other requirements.

3. **What did I learn? How were plan and reality different?**
I have had it further impressed upon me that I need to stop jumping the gun as shown by the change from custom to off the shelf FSRs as well as the failure to construct a test stand.

Team level goal for next phase

    Complete initialize design of board and folding mechanism. Begin preliminary design of PCBs and initial testing of major components. Seek out additional funding, including completing the application for the IEEE grant by March 5th.

What do I plan on doing to ensure that my team has a successful review at the end of the next phase?

1. Collaborate with Kristen and come up with a preliminary electrical hardware design (20 hrs)

2. find an American supplier for the chosen hub motors and come up with justifications for why we need to purchase this specific motor and how it is not possible to get it from an approved vendor (5 hrs).
3. Complete IEEE grant applications, if applicable standards can be found (6 hours)
4. Figure out number of PCBs needed and wire routing routes for electrical subsystems (5 hrs).
5. Continue motor control algorithm research (10 hrs)