

Team: Movin On Engineer: Matthew Gould

What were the outcomes of the prior phase?

1. What did I plan to do?

- Write up project summary
- Figure out group roles
- Collectively figure out customer and engineering requirements
- Do preliminary research on motors

2. What did I actually do?

- All of the above
- Created preliminary state machine for motor controller
- Research various electronic braking schemes
- Create powerpoint explaining DC motor basics, and the types of motors available for electric skateboards
- Write up use cases.

3. What did I learn? How were plan and reality different?

I learned that the amount of documentation involved in the project is substantially higher than I had expected and that rushing ahead is counterproductive to getting useful work done.

Team level goal for next phase

Over the next few weeks, we will finalize the set of deliverables, keeping an open line of communication with customer so that we can adapt to any changes in customer expectations. Research will be conducted by each member on their assigned project subsystems: motors, pressure sensors, batteries, folding mechanism, etc. Following this, after identifying the impacts any specific component of a subsystem may have with the other systems, initial design of subsystems will commence. A visual representation for the Michelin Design competition will be created by mid February.

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

1. Finish motor research (5 hours)
2. Offer a final list of motors to select for our project (3 hours)
3. Create test stand for testing FSR control system and run initial tests to determine feasibility (20 hours).
4. Follow up with FSR manufacturer and get a quote for preliminary custom orders effectiveness (5 hours).

5. Get motor data sheets or come up with setup to experimentally determine all required electro-mechanical parameters of the motor that will eventually be selected in order to facilitate accurate motor modeling (10 hours).