sdmay20-29: Self-Solving Rubik's Cube
Week 6 Report
November 18 - December 6

Team Members

Jacob Campen — *Hardware Lead*
Taylor Burton — *Systems Lead*
Casey Cierzan — *Materials Lead*
Joseph Crowley — *Testing Lead*
Annie Lee — *Algorithms Lead*
Keegan Levings-Curry — *Administrative Lead*
Luke Schoeberle — *Software Design Lead*

Summary of Progress this Report

During this week, we nearly finished the design for our first prototype.
In the hardware realm, we tested the motor for our prototype, and we found that the new motor was much more effective for our needs. We also nearly completed the CAD model of our prototype.
In the software realm, we wrote some basic control code for the stepper motors and the Teensy, and we also produced colored terminal output for the rotation algorithms. We will improve the Arduino code in the future when we can test it more thoroughly.

Pending Issues

We do not have any pending issues at this time.

Plans for Upcoming Reporting Period

Name	Upcoming Tasks
Jacob	- Start the construction of the first prototype - Determine power constraints for the new motors
Casey	- Order more parts if needed - Assist Jacob and Taylor with their tasks
Joe	- Continue researching Teensy libraries - Write motor control methods
Luke	- Continue researching Teensy ADC functions - Improve Teensy ADC code
Taylor	- Design CAD parts for connecting the motors to the cube's faces - Start the construction of the first prototype
Annie	- Continue researching Teensy libraries - Improve Teensy ADC code
Keegan	Assist other members as necessary

	• Start the construction of the first prototype

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Jacob	Investigated specifications for the new motor; Tested the new motor	12	72
Casey	Tested the new motor; Assisted other members as needed	12	72
Joe	Investigated Teensy libraries; Reviewed CprE 288 material	12	72
Luke	Wrote basic Teensy ADC code; Added color to the rotation testing	12	72
Taylor	Tested the new motor; Designed overall CAD system	12	72
Annie	Investigated Teensy libraries; Reviewed CprE 288 material	12	72
Keegan	Tested the new motor; Assisted other members as needed	12	72

Gitlab Activity Summary

Luke pushed some Teensy ADC code and the terminal coloring code to the repository. Joe and Annie viewed these changes.