Physics group project mid-term review

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Our project in general is going well. We have a great group of people all keen on working together towards the goal, which is, in my experience, a rare and lucky occasion with a group of 8 people. All of us contribute time, work, ideas and attend meetings regularly.

The project consists of an experiment to test a new idea that needs to be explored mathematically and tested on an experimental setup similar to one built by students of Cornell University. For this reason, we were in the lucky situation that we could start building the experimental apparatus before we fully understood what we were doing. It also allowed for everyone to catch up to speed in their own pace. We have had a few hiccups here and there, but I am confident that we will be able to conduct the experiment by the deadline, although it seems increasingly likely the result will not be what we initially expected.

Personally, I found the new challenge of working with electronics very interesting. I could build on my previous experience to take on the responsibility of sourcing and assembling the electronics and writing the code for the microcontroller to perform the necessary calculations. To be able to do this, I had to learn the basics of programming the microcontroller in C, setting up timer interrupts and use the available resources efficiently. Prior to the project I have not had much experience with lab equipment though, which lead to running into a few issues, like accidentally frying some chips in the testing process (Unfortunately fried ICs don’t taste quite as good as fried potato chips).

Since most of our equipment is ready and assembled, in the coming weeks we will be able to test the setup and modify the code to conduct the experiments that our theoretical team suggests is of interest. We are commencing on writing the final report as well and planning the structure for the poster for the presentation.