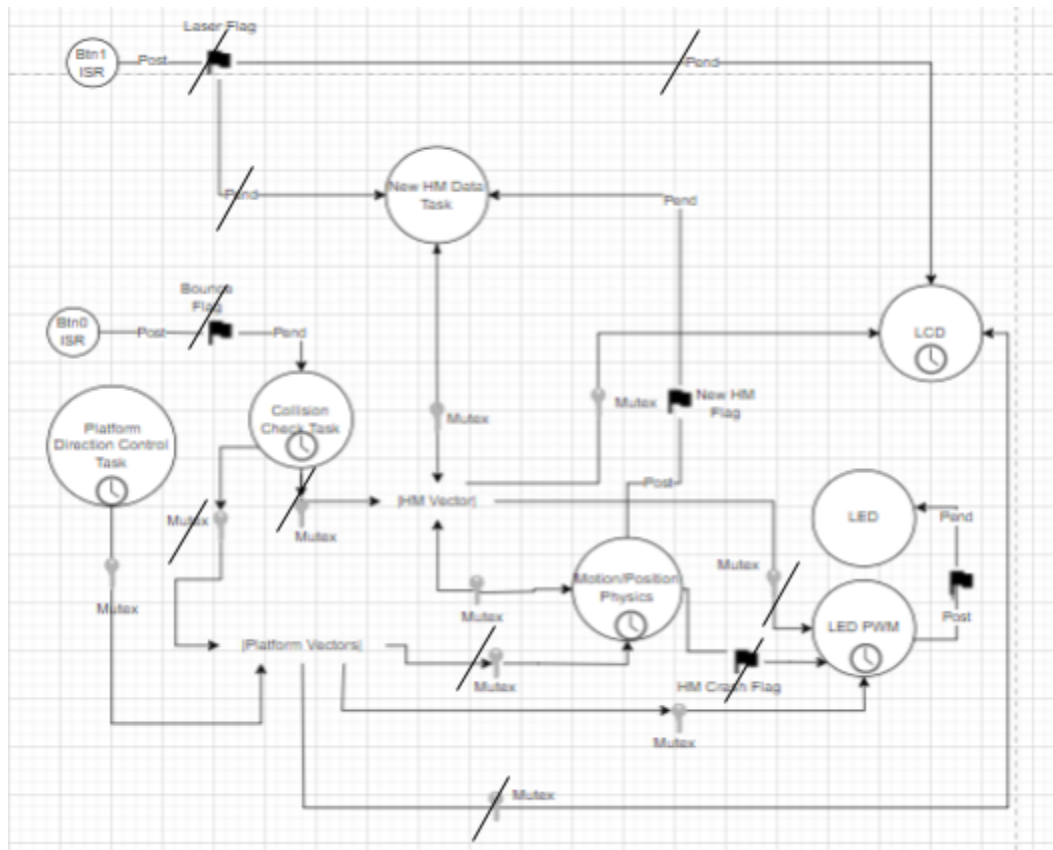


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3/11/22
ECEN 3753

Project HarkonnenPong Week 01

Cutting Points



One cutting point is for testing how changing the slider position in the Platform Direction Control Task influences the PWM of the left LED to make sure it is being read correctly given the slider's current drifting bug.

The other cutting point is for testing the HM's downward motion up to the HM hitting the base, how it's displayed on the LCD screen, and the addition of a new HM when the old one leaves the screen.

Functionality Deliverables and Usability Summary

This week I read the project requirements and started the project planning, created my task diagram, started the in-scope work items list, created the risk register, created an estimate for the summary effort, and identified 2 cutting points for unit testing.

Summary effort & estimate numbers

I have completed **6.7%** of my currently-scoped, estimated work (8 actually spent /120hr total estimate) in **8.3%** of the initially-estimated time. (10 estimated for the items I have completed, of 120hr total estimate). For the work that has been completed, I took **1.25x** (10/8) as much time as I estimated.

The scope changes I've made are through creating them in this first week of the Project and agreed to with the instructor, my latest scope is my original scope (120 hrs). After this week's report, I will use this scope in my summary statements until further notice.

In-scope work items

Completed this week:

- Project Reading and Task Diagram First Draft creation (est 10 hrs) (actually 8 hrs)

I feel confident that I understand what this project is asking now that this task is done. In spite of not having any code for this project yet, the mechanics that I need to implement appear simple and easy to debug. It was slightly more difficult than expected but I managed to get through it. The most difficult part was finding time to complete it while in a non-exhausted state due to it being a week full of midterms. In hindsight, I wish I'd found a way to put more time into the task diagram, so that it will look cleaner, easier to read, and make it easier to set up for the test cases and cutting points.

Not Completed yet:

- Create Tasks and Test on Segger (est 2 hrs)
- Task Diagram Revision for clarification and necessary optimization (est 3 hrs)
- Learn How to Manipulate LCD drawings (est 20 hrs)
- HM Physics Unit (est 10 hrs)
- Lose Condition LED Control (est 1 hr)
- Configure slider to control LED PWM (est 2 hrs)
- Platform Motion (est 1 hr)
- Basic Platform/HM collision (est 2 hrs)
- Platform/HM collision with bounce (est 5 hrs)
- Motion/Position Physics Task (est 10hrs)
- Laser Implementing (est 1 hr)
- Platform Bounce (est 2 hrs)
- Task Unit Testing (est 10 hrs)
- Task Integration Testing (est 10 hrs)
- Qualification Check/Debugging (est 15 hrs)
- Slider Testing (est 6 hrs)
- Platform Interception Prediction LED implementation (est 5 hrs)
- Commenting and Code Cleanup (est 5 hrs)