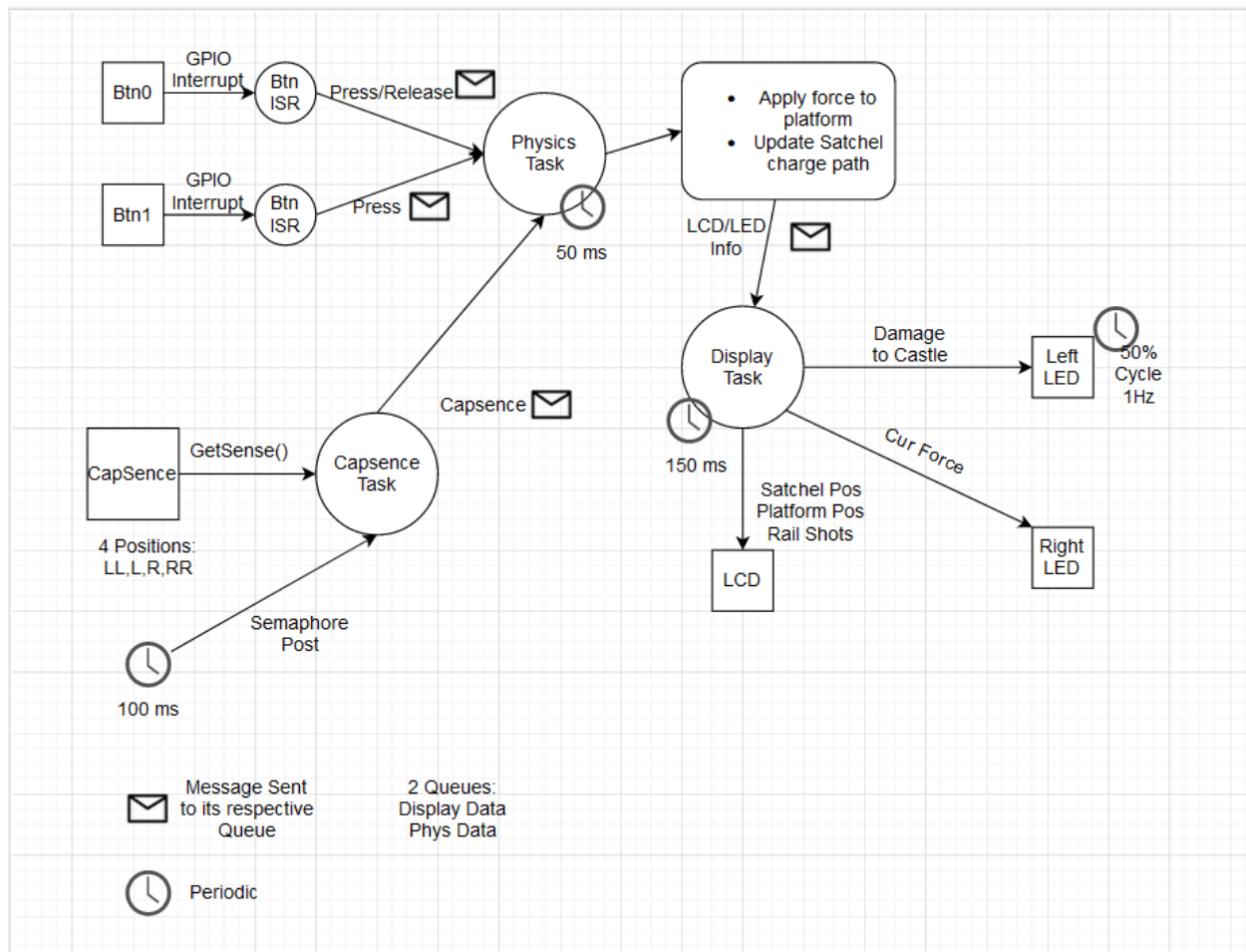


Week 3:

Task Diagram:



Test and Plan:

Unit Testing Plan (Min 3 cutting points) (Min 10 Tests)

- Queue functionality:
 - [Priority/Round Robin Functionality]: Complete Functionality
- Task OS management:
 - [Correct Task Creation/Able to Enter Each Task]: Complete Functionality
- Physics Task Input Functionality: (Button/Capsense testing)
 - [Capacitor Timer Callback/Semaphore Post]: PartialFunctionality
 - [Btn0 Press And Release]: Complete Functionality
 - [Btn1 Press Only]: Complete Functionality
 - [Enters Physics task every 50ms if no Msg Queue]: Written
- Physics Task Output Functionality:
 - [Satchel Pos]: Written
 - [Platform Pos]: Written
 - [Rail Shots]: Written
 - [Enters Display task every 150ms if no Msg Queue]: Written

- LED Cycle Test:
 - [50% Cycle 1 Hz]: NotRun
 - [PWM to show Force as % of MAX_FORCE]: NotRun
- LCD Functionality
 - [LCD]: Complete Functionality

Statement of where my Project Stands:

- This week I was unable to do much concrete testing with my board as I had spoken to the Professor as well as TA Nicholas on 4/13 and they determined that I needed to restart in order to get my timer function to work.
- I was unable to import TA Will's Lab 7 so instead I took my project and modularized it so that I could quickly transfer and test the features when I am able to import his project.
- I implemented the Physics task, almost in its entirety except I didn't add the messaging functionality as it will be easy to copy and past once I download Will's Lab 7
- More specific choices I made this week was to establish my satchel charge and rail shot structs in a list so that I could easily access each of the items and increasing the total amount of shots/satchels on screen will not damage performance too severely. I also Implemented some of the choice variables as defines so I could change them later. An example of this (this one I have not implemented but I will) is the rail shot speed. Currently I use a formula $Speed/k = (Charge - Energy_Requirement) / Max_Energy$, this gives me a 0->100 value and by modifying k I will be able to determine the actual speed rather than just a percentage.
-

Summary Effort & Estimate Numbers:

I have completed **60%** of my currently-scoped, estimated work (**25** estimated for work completed thus far 45 /hr total estimate)

List of in-scope work Items:

- % Of Test Cases implemented:8/13
- % Of Test Cases Passing:5/13
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