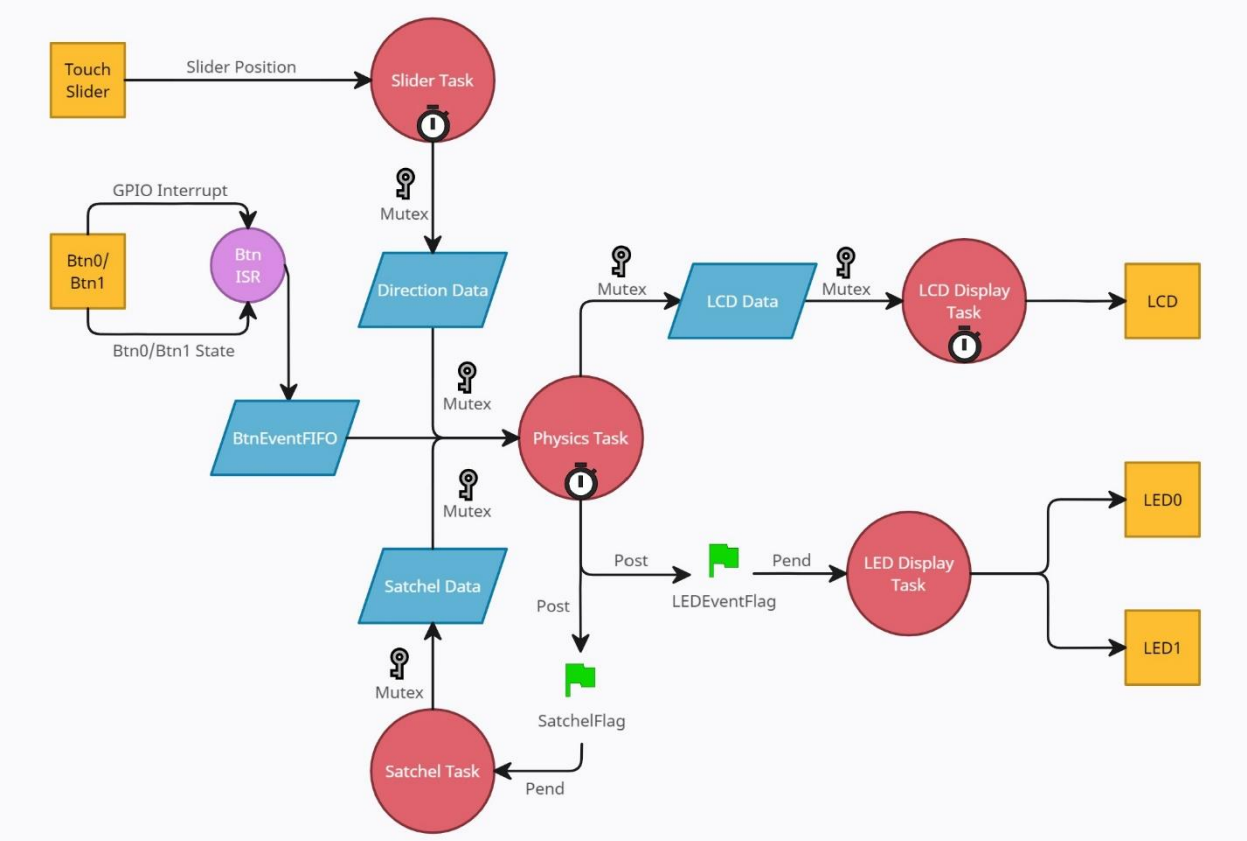
Project Week 1: Planning

Tim Houck

Time Estimates:

Part	Estimate	Actual
Read description	5 min	10 min
Task diagram	1 hour	1 hour 30 min
Describe cutting points	15 min	15 min
Summary	10 min	10 min
Work items list	15 min	35 min
Update risk register	15 min	10 min
Total:	2 hours	2 hours 50 min

Task Diagram:



Cutting Points for Testing:

A good cutting point would be between the Satchel Task and the Physics Task, as these are two tasks that I haven't already done in previous labs, so they will likely require more testing. The Physics Task is also responsible for flagging the Satchel Task when there are no more satchels in the air, so it would be good to test these tasks separately before integrating this loop.

Another good cutting point is between the Physics Task and the LCD Display Task. Before figuring out how to display all relevant information on the LCD it is important to test that all the information sent from the Physics Task is accurate. This will also allow me to test the LCD Display Task before implementing physics.

Summary:

This week I planned my project by first creating a task diagram showing the inter-communication of tasks and the sharing of data structures within the program. I also identified two desirable cutting points to be used for testing later on and updated my risk register with two new risks.

I have completed **2.86%** of my estimated work (**1** hr estimated for work completed out of 35 hr total estimate) in **4.28%** of the budgeted total project time. (**1.5** hrs spent out of 36 hr total estimate). For the work that has been completed, I took **1.5x** (1.5hr/1hr) as much time as I estimated.

List of Work Items:

Item	Status	Estimate	Actual (so far if inc.)
Task Diagram	Complete	1 hour	1 hour 30 min
Unit Testing	Incomplete	5 hours	15 min
Risk Register	Incomplete	4 hours	10 min
Config Data Structs	Incomplete	2 hours	-
Button Input & FIFO	Incomplete	1 hour 30 minutes	-
Slider Input	Incomplete	1 hour 30 minutes	-
Physics Model	Incomplete	6 hours	-
Satchel Throwing	Incomplete	3 hours	-
LED Display	Incomplete	2 hours	-
LCD Display	Incomplete	6 hours	-
Summary/List Work	Incomplete	3 hours	45 min
Total:	1/11	35 hours	2 hours 40 min

Completed this week:

- Task Diagram

  Creating the diagram was helpful for me as I was able to visually see how each task in the program would interact with one another. I had to do a lot of planning and thinking ahead, which I think will help me moving forward. This did take a bit longer than I expected because I had to think a lot about how I wanted to implement each of the tasks and which functions each task would perform with which resources.