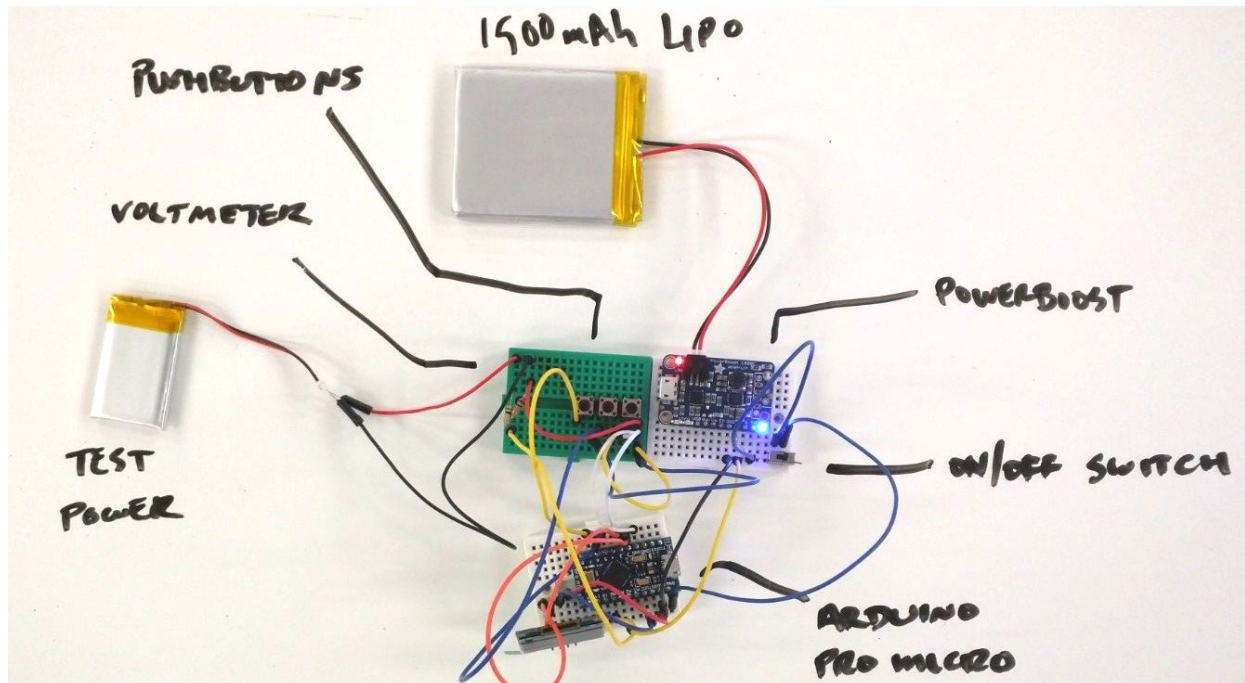


# Function Proof of Concept

## Functional Breadboard



Splash Screen	Main Menu	Volt Meter
Volt Grapher	Help Screen	About Screen

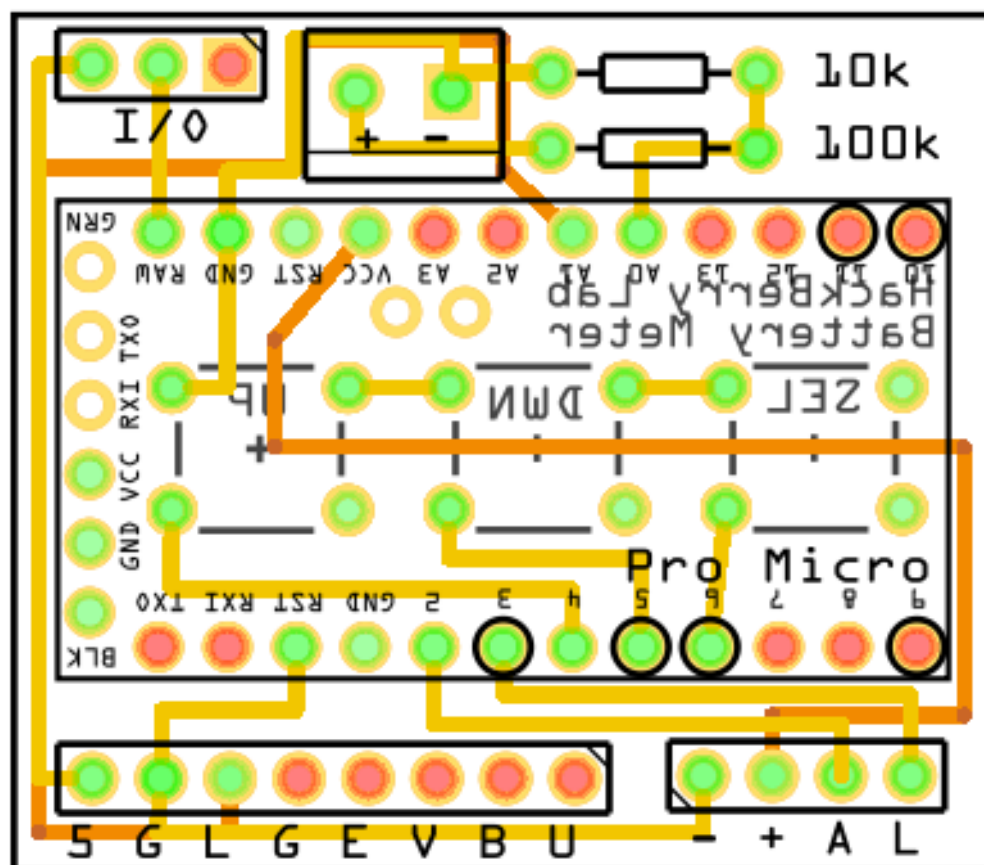
Overall the concept matched the implementation fairly well. It took a little while to determine how to create a splash screen that would load at booting time, but I was able to find the necessary hex and create an appropriate graphic in LCDAssistant. I also used LCDAssistant to create a low battery icon, that I was able to load into the static memory of the Arduino Pro Micro to reduce the overall amount of memory it would take. I ran into a few stability issues with taking up too much memory and had to reformat my code to make it run appropriately. It was also interesting to navigate between the two colors of the LCD because the pixels are fixed (yellow pixels are always in the first 100 rows and blue are all the remaining rows). Because of this, I had to adjust some of the graphics I laid out during the storyboard phase.

### HelloWorld Software

I have included the software in the GitHub repository with the following libraries:

- Adafruit GFX Library (modified)
- Adafruit ILI9341 Library

### PCB Design



## PCB Paper Test

