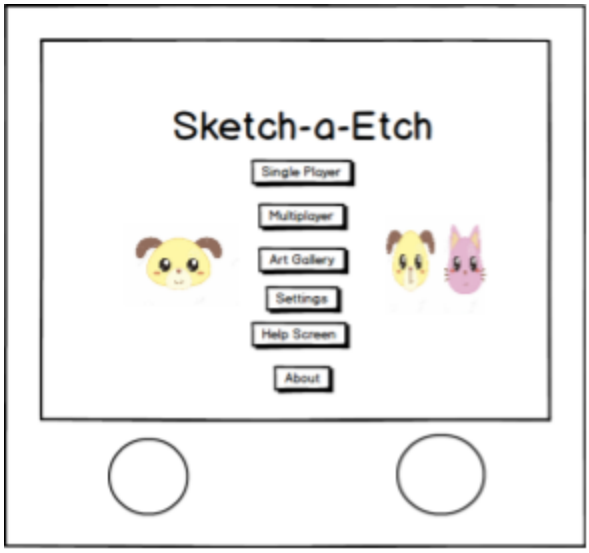
Function Development

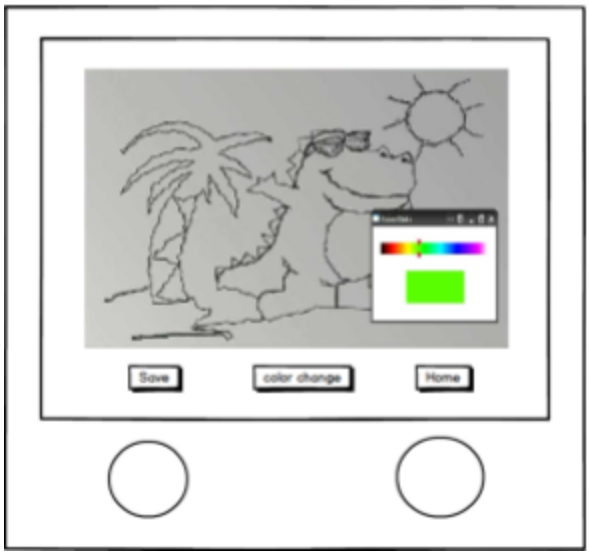
Wireframe Storyboard

Emily Smith

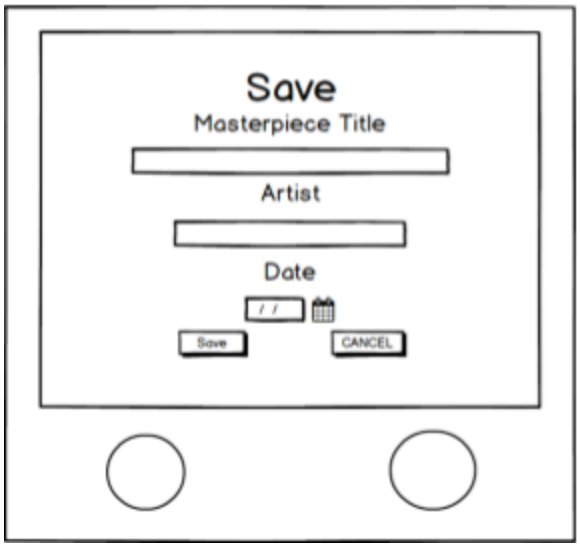
Splash Screen
This screen is displayed when the device is first turned on to indicate that it is powering up.



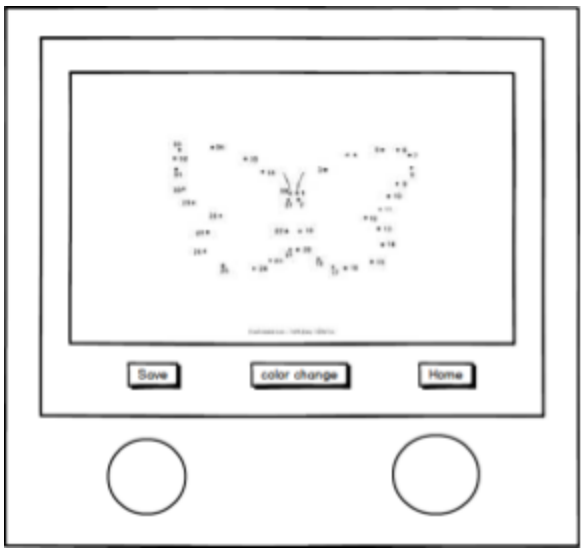
Main Menu
This menu allows the user to navigate through the main six options. Users will return here at the end of their game or drawing session.



Single Player Sketch Mode
This screen is what is seen when the game is in single player mode. From here players can change color by pressing right rotary encoder, or open a menu tab using the left. The menu tab allows users to either save work or return home.

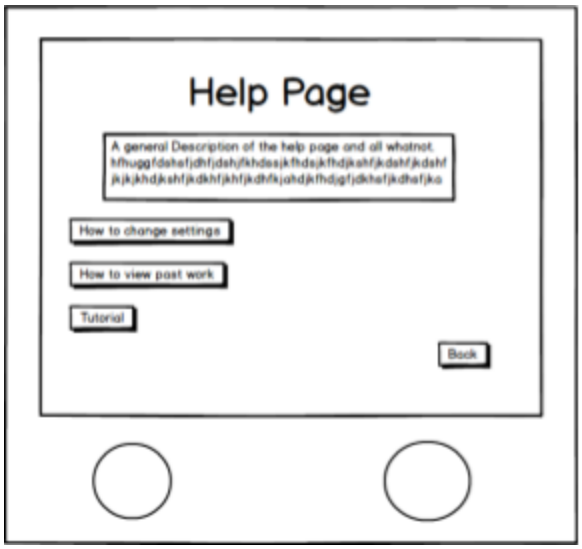


Save
When the user presses the save button in the menu, which is done using the button in the left rotary encoder, they are taken to this page. They can then fill in the information and press save, which will take them to the main menu, or cancel which will take them back to their previous page.

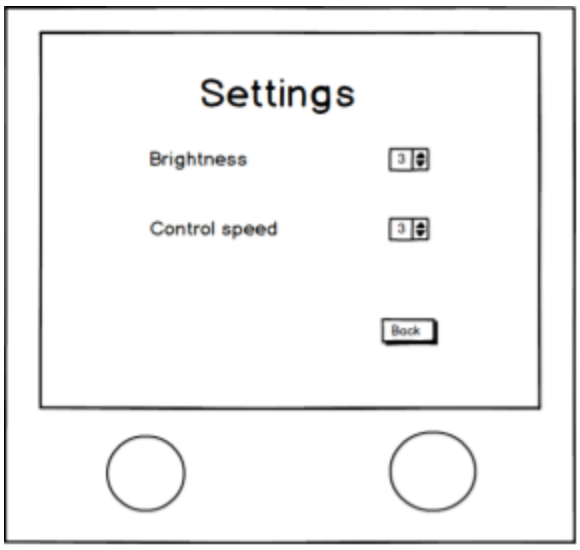


Multiplayer
Multiplayer works much like regular draw mode, except each player gets one rotary encoder and must work together to trace the image on the screen. From here Save, Color Change, and Home work the same as they do in single player.

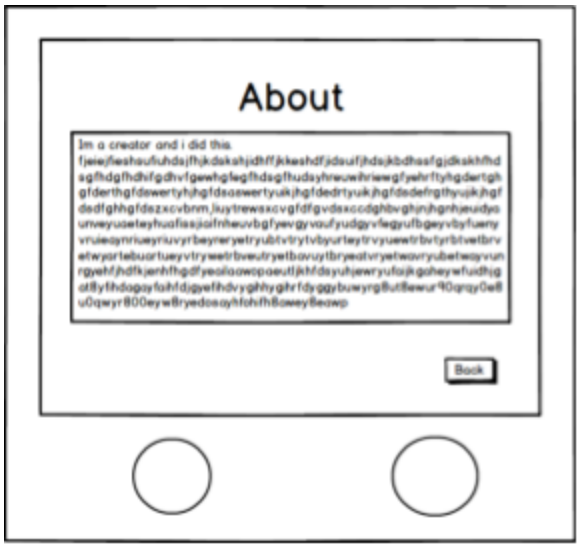
Art Gallery Page
This page displays saved work. From here you can look at the work by swiping to scroll through saved images, or go back to the main menu by pressing the right rotary encoder. Scrolling is done using the left rotary encoder.



Help Page
This page can be selected from the home screen. It is used to provide general information on how to use the device.



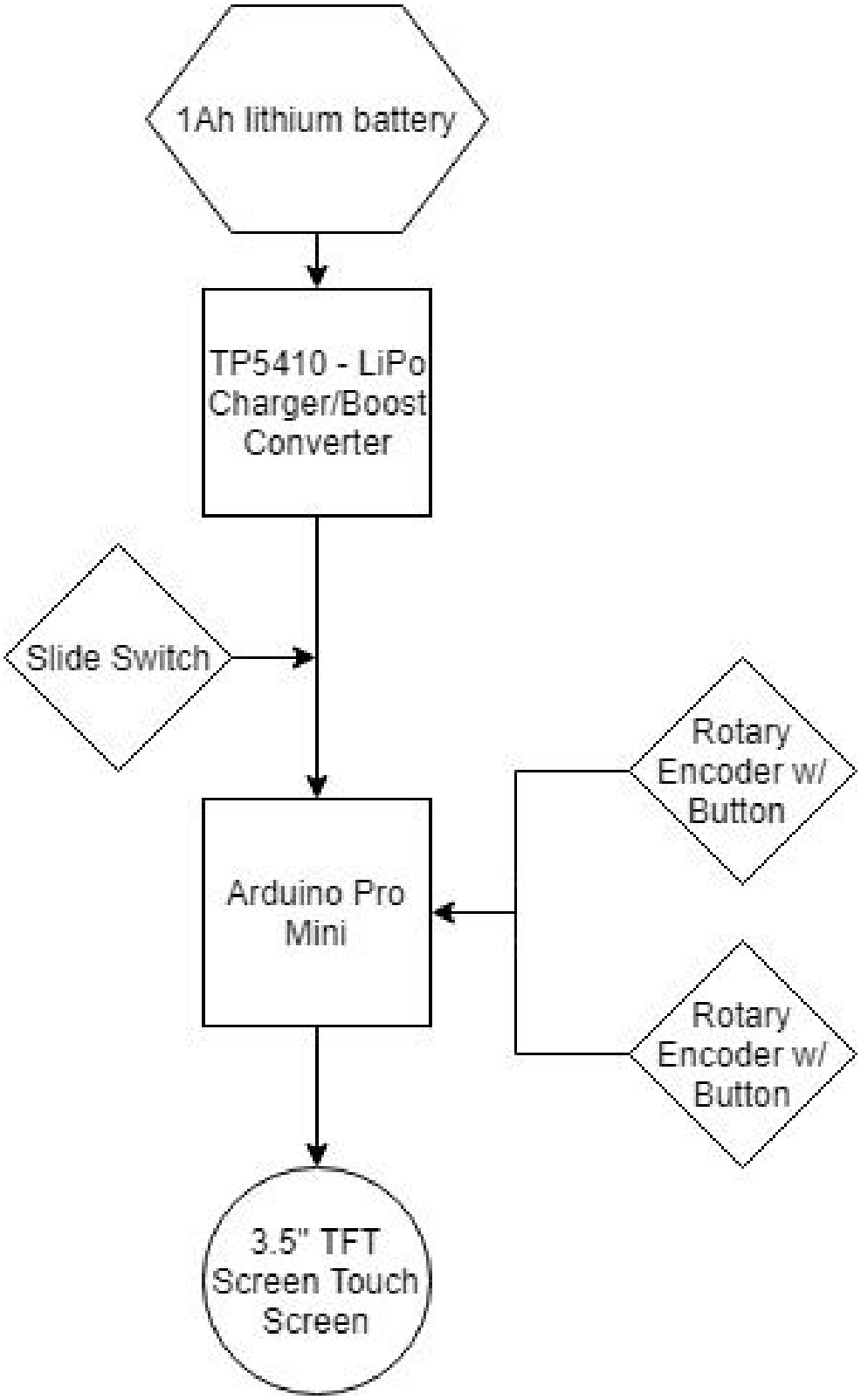
Settings
This page can be navigated to from the main menu and is used to set brightness and speed.



About

This page can be navigated to from the home screen and is meant to provide general information about the designer.

Component Sketch

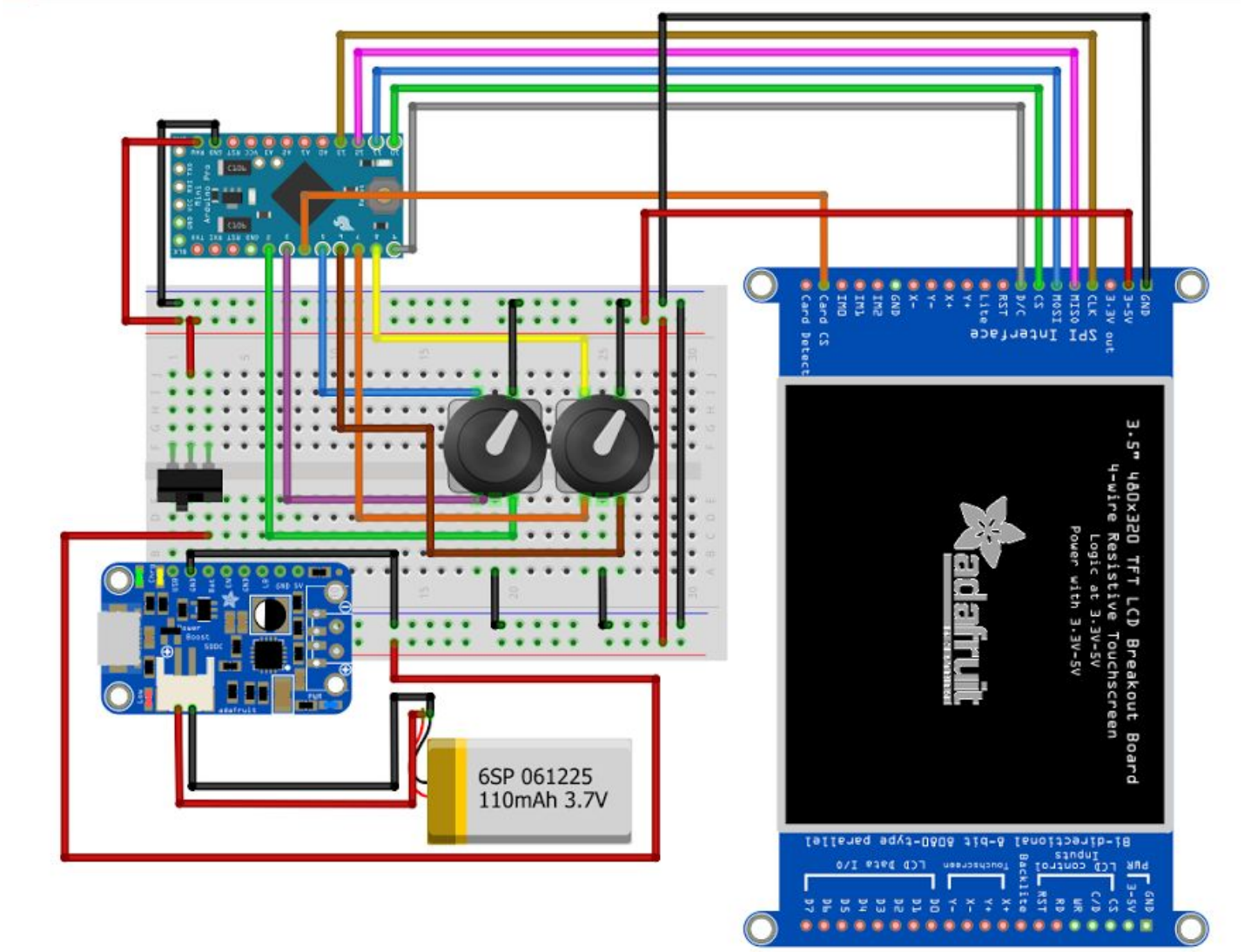


Bill Of Materials

Item	Purchase URL	Documentation URL	#	Cost
Rotary Encoder with buttons	**https://www.sparkfun.com/products/9117**	https://learn.adafruit.com/pro-trinket-rotary-encoder	**2**	**$4**
Arduino Pro Mini	https://www.sparkfun.com/products/11113		**1**	**$10**
3.5" TFT 320x480 + Touchscreen Breakout Board w/MicroSD Socket	**https://www.adafruit.com/product/2050**	**https://learn.adafruit.com/adafruit-3-5-color-320x480-tft-touchscreen-breakout/touchscreen**	**1**	**$40**
TP5410 - LiPo Charger/Boost Converter	https://www.ebay.com/itm/191990401129	https://www.youtube.com/watch?v=aND0j2Y2IkM	**1**	**$2.19**
Lithium Ion Battery 1Ah	https://www.sparkfun.com/products/13813		**1**	**$10**

	Total	**$66.19**

Breadboard Model



Electronic Schematic