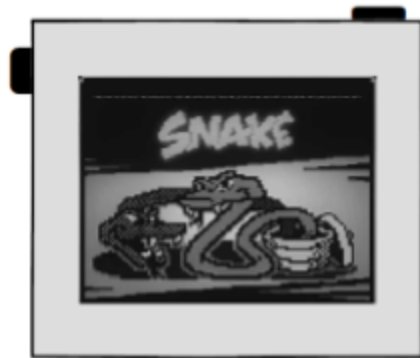


## FUNCTIONAL DEVELOPMENT

### *Wireframe Storyboard*

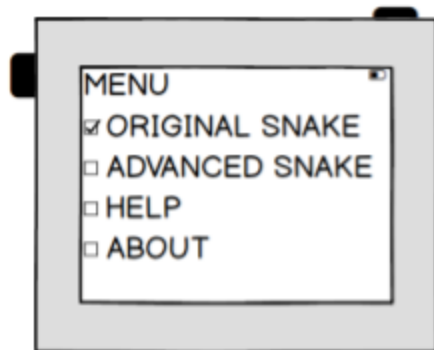
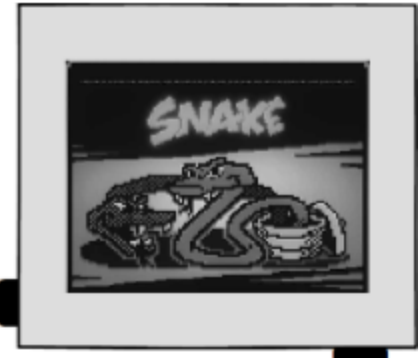
Screen 1



#### SPLASH SCREEN

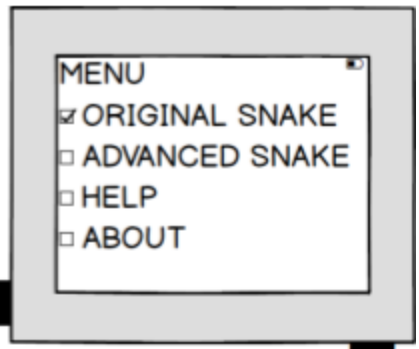
This screen is shown when the device is turned on. After two seconds this screen will switch to the HOME SCREEN.

Screen 2



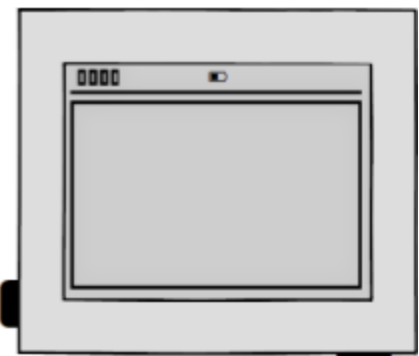
#### HOME SCREEN

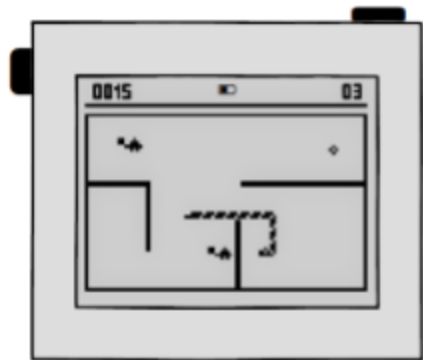
This screen shows the five different screen options to select through and the battery life. The users rotates the device to select through the menu then uses the button to access the selection.



#### FUNCION MODE 1

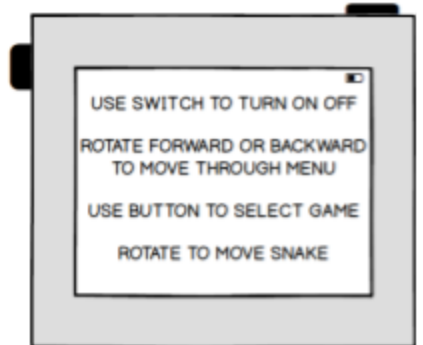
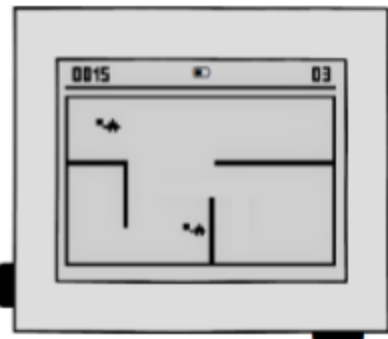
This screen is shown when the user selects ORIGINAL SNAKE from the HOME SCREEN. The score is displayed on the left of the battery life. The user rotates the device at any orientation to move the snake to get its food. The game will play until the snake dies by eating itself. When the snake dies the user is brought back to the HOME SCREEN. Use the button to go back to the HOME SCREEN as well.





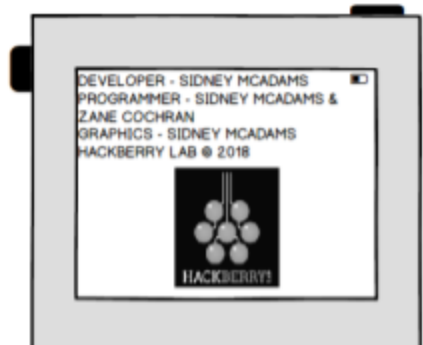
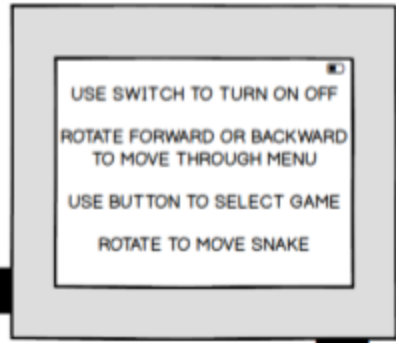
#### FUNCION MODE 2

This screen is shown when the user selects ADVANCED SNAKE from the HOME SCREEN. The score is displayed on the left of the battery life and the lives on the right. The user rotates the device at any orientation to move the snake to get its food. There are specialty items the snake can eat that will give it boost, loss of life, or gain of life. The game will play until the snake dies by eating itself or runs into a wall. When the snake dies the user is brought back to the HOME SCREEN. Use the button to go back to the HOME SCREEN as well.



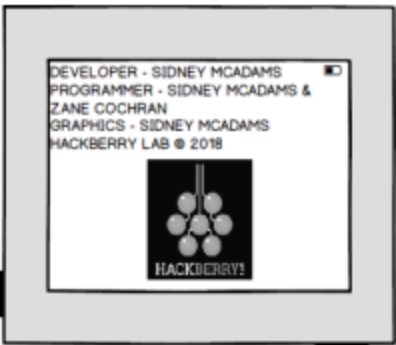
#### HELP SCREEN

This screen is shown when the user selects HELP from the HOME SCREEN. The battery life is shown on the top right of the screen and helpful information is displayed. To go back to the HOME SCREEN the user must simply press the button.

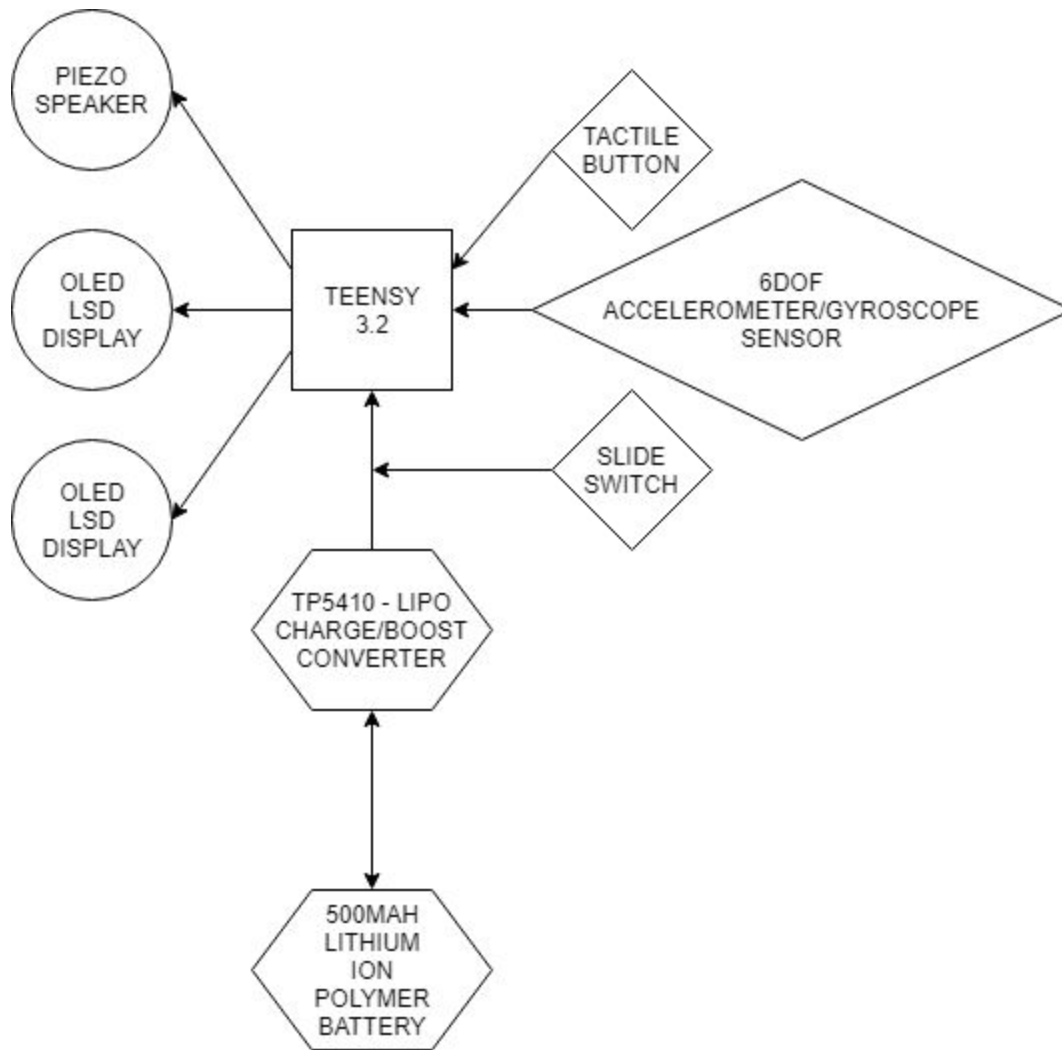


#### ABOUT SCREEN

This screen is shown when the user selects ABOUT from the HOME SCREEN. The battery life is shown on the top right of the screen and information about the creators is displayed. To go back to the HOME SCREEN the user must simply press the button.



## Component Sketch

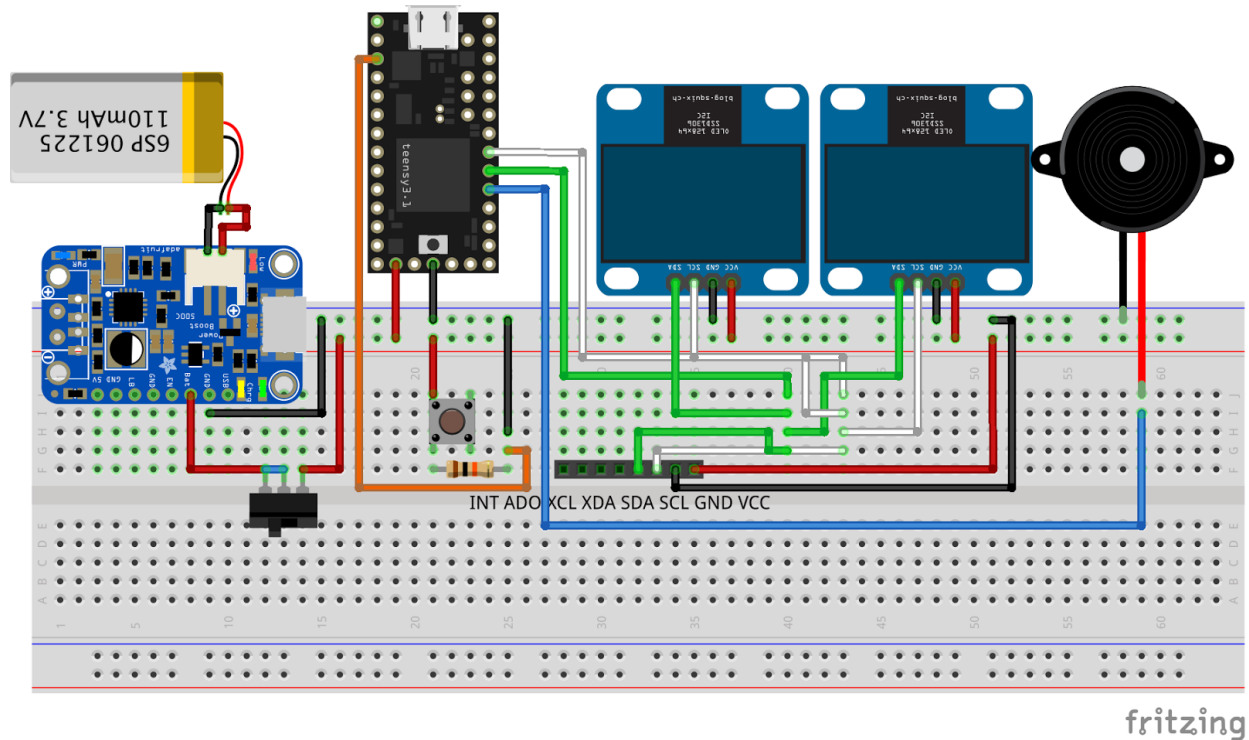


## Bill of Materials

Item Name	Item Cost	Quantity Required	Reference URL	Purchase URL
Teensy 3.2	\$15.95	1	Adafruit	<a href="https://www.adafruit.com">https://www.adafruit.com</a>
.96" OLED Screen	\$8.99	2	Amazon	<a href="https://www.amazon.com">https://www.amazon.com</a>
Piezo Speaker	\$.95	1	Adafruit	<a href="https://www.adafruit.com">https://www.adafruit.com</a>
Slide Switch	\$.95	1	Adafruit	<a href="https://www.adafruit.com">https://www.adafruit.com</a>
6 DOF Accelerometer/Gyroscope Sensor	\$5.09	1	Amazon	<a href="https://www.amazon.com">https://www.amazon.com</a>

Tactile Button	\$2.50	1	Adafruit	<a href="https://www.adafruit.com/product/367">https://www.adafruit.com/product/367</a>
500mAh Lithium Ion Polymer Battery	\$7.95	1	Adafruit	<a href="https://www.adafruit.com">https://www.adafruit.com</a>
TP5410 - LiPo Charge/Boost Converter	\$2.19	1	Ebay	<a href="https://www.ebay.com">https://www.ebay.com</a>
10k Ohm Resistor	\$5.76	1	Amazon	<a href="https://www.amazon.com">https://www.amazon.com</a>
TOTAL:	\$50.33			

**Breadboard Model** - Create a breadboard model in **Fritzing** simulating your circuit. Components should be well spaced and wire jumpers should be discernible.



**Electronic Schematic** - Create an electronic schematic in **Fritzing** showing your circuit with appropriate connections made in a well organized manner.

