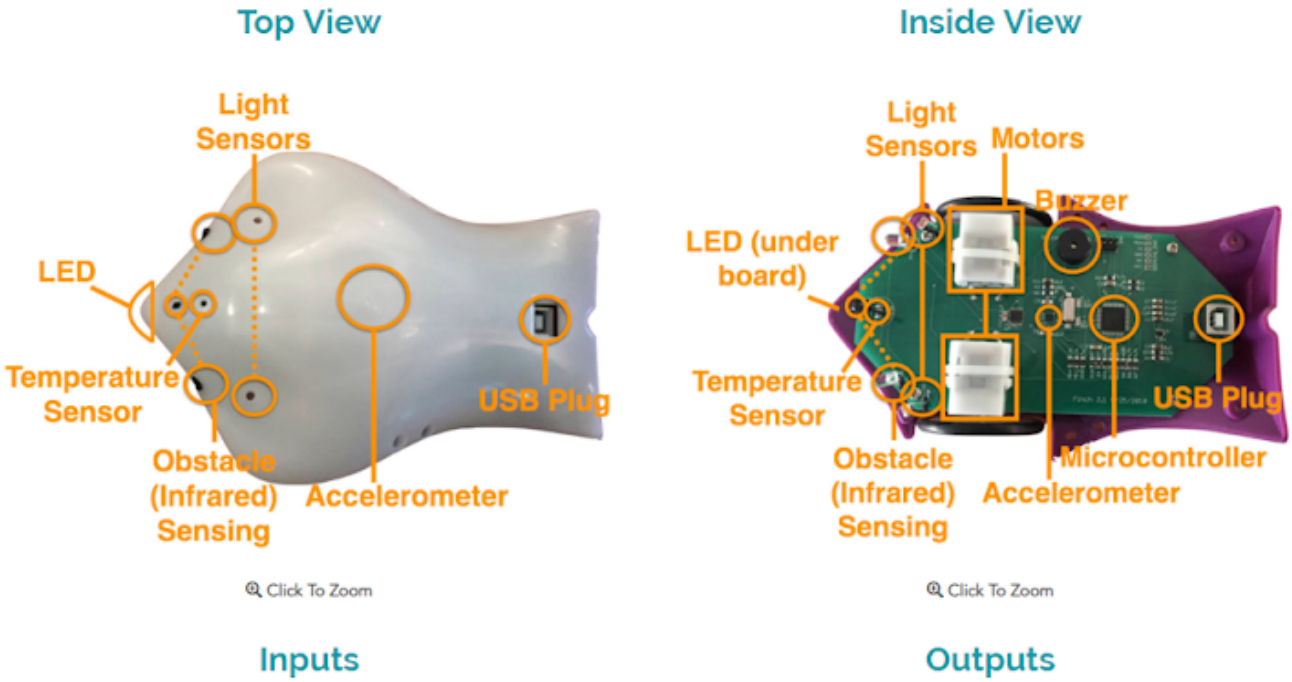
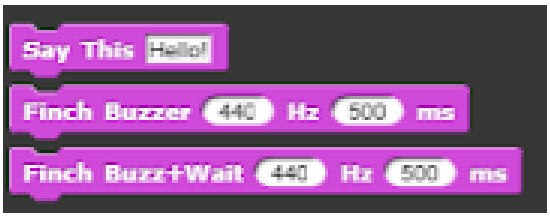
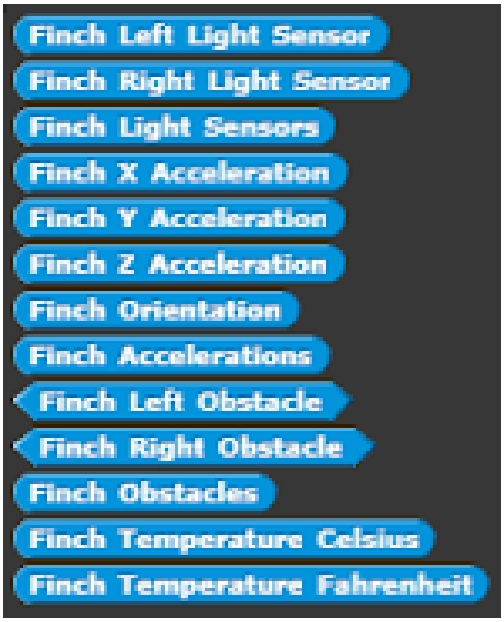
Finch Robot Activity

For this activity, we will be using Snap! to program a Finch. A Finch is a robot that helps teach students how to code robots with fundamental algorithms. The Finch can be programmed in a variety of languages across various skill levels including Java, Python, and Scratch.

Diagram of Finch:



All Finch blocks are located at the end of the list of blocks in a given category, and they all contain the word "Finch". If a block does not contain the word Finch, it is a regular Snap! block. The blocks in the Control category can be used to control the Finch. These do not contain the word "Finch." The following table shows you where Finch blocks are located to help you program:

Category	Function
Control	Blocks that control/run functions of Finch
Motion	Blocks that move the Finch:
Looks	Blocks that control the color of the Finch's beak:
Sound	Blocks that control the Finch's buzzer: 
Sensing	Blocks that control the sensors on Finch: 

Programming Challenge:

Make a program that allows the Finch to move while avoiding obstacles.

1. The Finch should move forward when it does not encounter any obstacles.
2. If the Finch encounters an obstacle on the left, it must move back a little, then move right.
3. If the Finch encounters an obstacle on the right, it must move back a little, then move left.
4. For extra pizzazz, make the beak green when the Finch moves forward and red when encounters an obstacle and is in the process of turning.

Finch programming challenge cheatsheet: