Finch Robot

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Period: 3

What is the Finch?

The Finch is a robot that can be controlled through programs such as Snap!. The Finch was created by BirdBrain Technologies, this company creates products and programs to catch the interest of teachers and students. The Finch was made in CMU's CREATE lab, both students and teachers were involved in the creation of the Finch robot.

Description of the Finch:

- The LED lighting on the Finch's nose changes color according to the RGB you assign it.
- The USB plug on the back of the Finch allows you to connect the Finch to a computer so the Finch can have access to programs like Snap!
- Two sensors on the front of the Finch allows the Finch to sense any obstacles in front of it.
- The temperature sensor can tell the temperature of the object in front of it.
- The buzzer inside the Finch buzzes based on the Hertz you assign it.
- The accelerometer detects direction of gravity (ex: if the finch is on the ground, upright, etc).
- The light sensors let the finch know the difference between light sources, and either follow or go away from that light source.
- There are two motors gears that allow the finch to go around their axis.
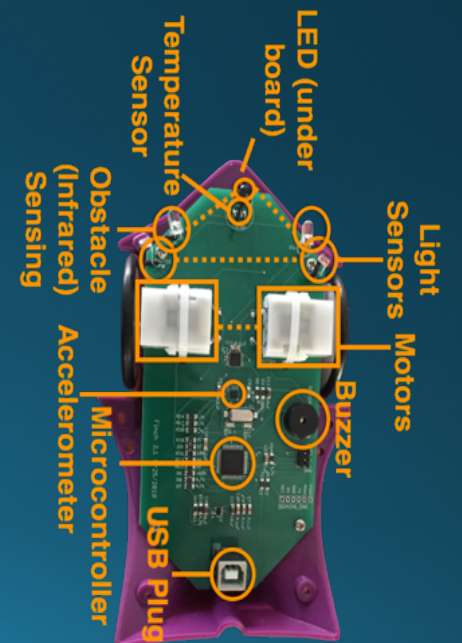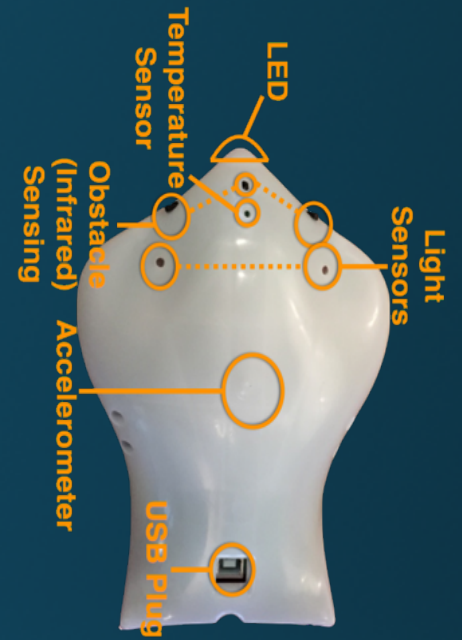
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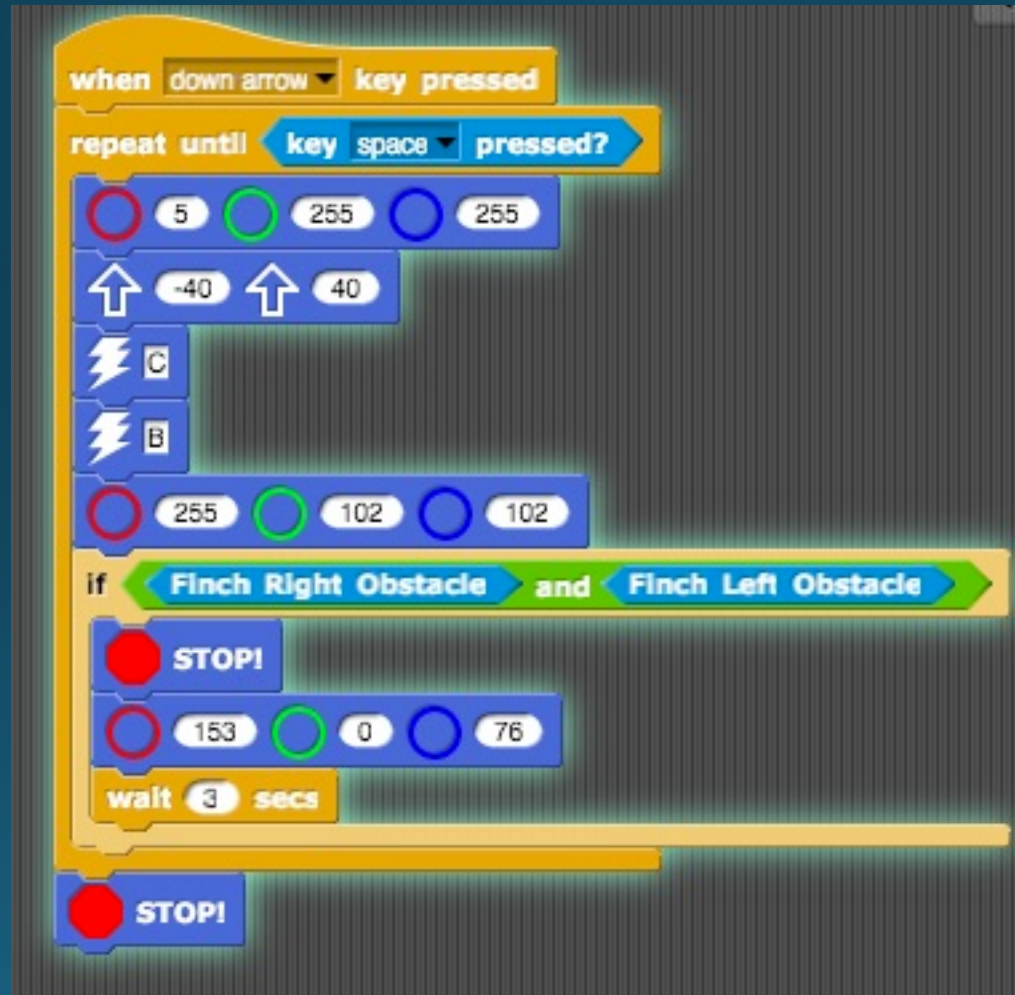
Code for Finch explained:

The code begins when the down arrow is pressed. Until the space key is pressed, the code will continue. The finch will start moving with a magnitude of -40 and 40 moving counter clockwise. While moving the finch will beep/ buzz note[1] C and then note B. There are also two sensors at the front of the finch. If the finch senses a left obstacle or a right obstacle, then the finch will stop. If no obstacle is sensed then the finch will continue to move and will then display a peachy color.

1-Note means music note

Challenges and Successes:

Challenges:
- Making the Finch turn
- Creating the code
- Using the obstacle blocks in Snap!

Successes:
- We were able to use both Snap commands and Finch commands together
- We were able to draw a perfect circle with the Finch
- We figured out the RGB coloring to make the Finch's nose change colors

Works cited:

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