Part One: Setup

1. Download Eclipse IDE. Go to:

https://www.eclipse.org/downloads/download.php?file=/oomph/epp/2024-03/R/eclipse-inst-jre-win64.exe

and download de file. Once completed, run it and follow the on-screen instructions to complete the installation.

2. Download the BlueBird Connector from here:

https://www.birdbraintechnologies.com/downloads/installers/BlueBirdConnector.msi

Run the program to install the connector, following the instructions on the screen.
This software will connect your computer to the Finch Robot using BlueTooth technology.
You must run it in the background while you are programming the Finch in Java.

3. Download the BirdBrain Java Library from here:

https://www.birdbraintechnologies.com/downloads/installers/BirdBrainJava.zip

This is a zip compressed files containing Java libraries ("pre-created" code for you to control Finch), that need to be added to your Eclipse installation to program Finch in Java.

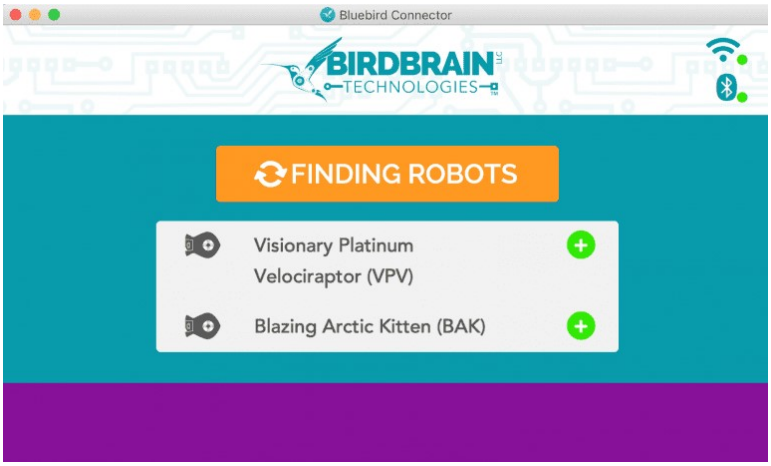
Simply save and unzip this file somewhere in your computer disk drive, but remember the folder location as we will be using it later.

Part Two: Try Your Installation

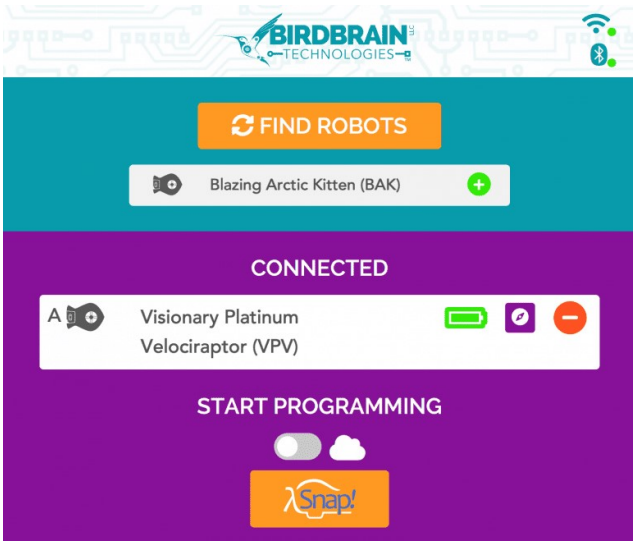
These steps will be required every time you create a new Java project in Eclipse to program Finch.

1. Turn on your Finch robot, by press and hold the black button in the bottom of your Finch:

2. Open the BlueBird Connector. It will begin finding the robots around you. Click on the name of the robot that matches the initials on your device. The initials are the three letters that flash before the # symbol.



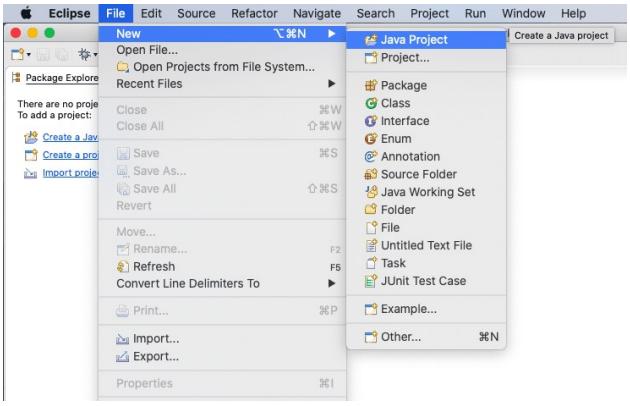
When you connect to your Finch, you will hear a series of tones, and the robot will show up in the purple “CONNECTED” section of the BlueBird Connector.



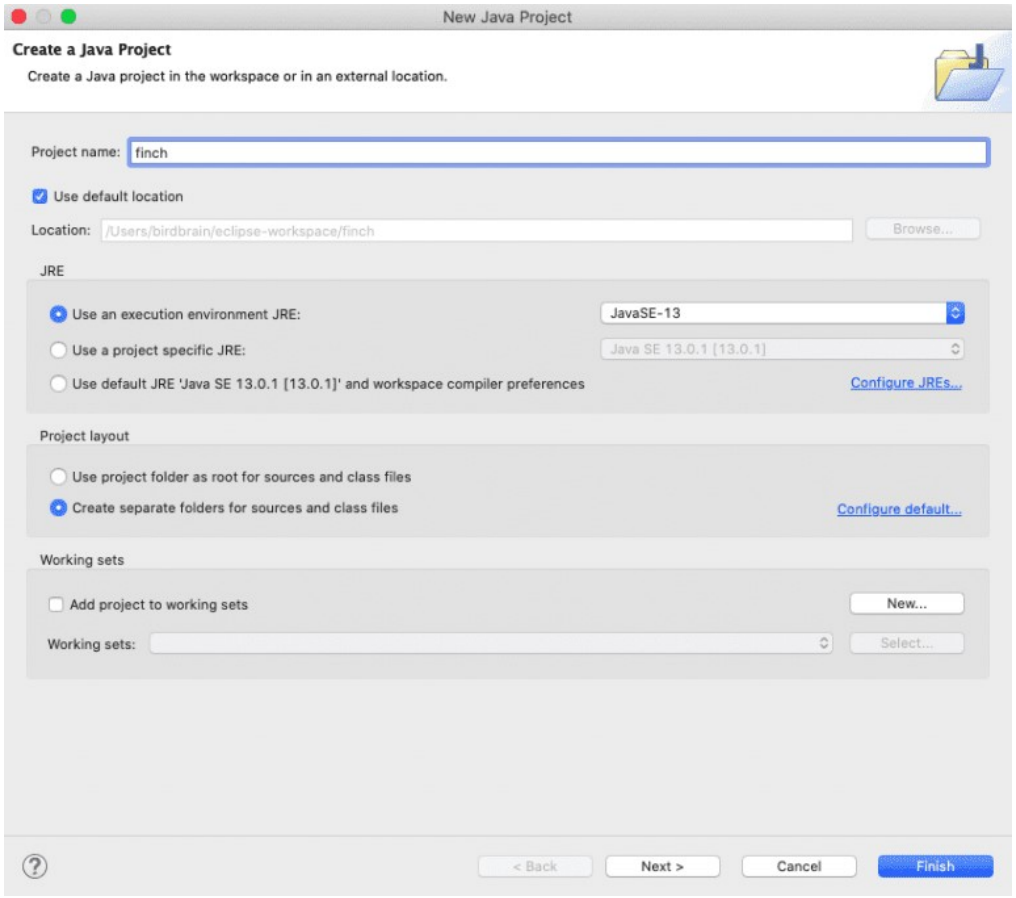
You can minimize the BlueBird Connector, but you should leave it open the entire time that you are using the Finch.

If at any point you have trouble with your robot, you should come back to the BlueBird Connector, check your Bluetooth connection, and reconnect if necessary. You can also check your battery level in the BlueBird Connector.

3. Open Eclipse and create a new Java Project:

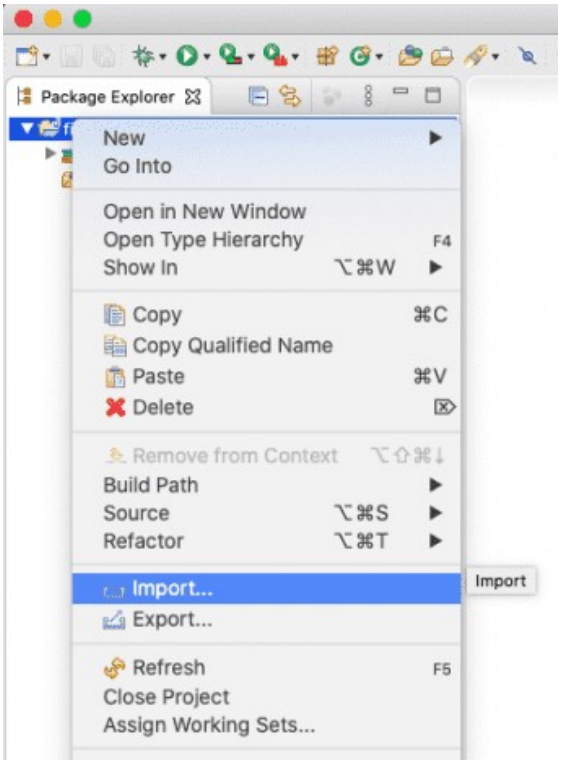


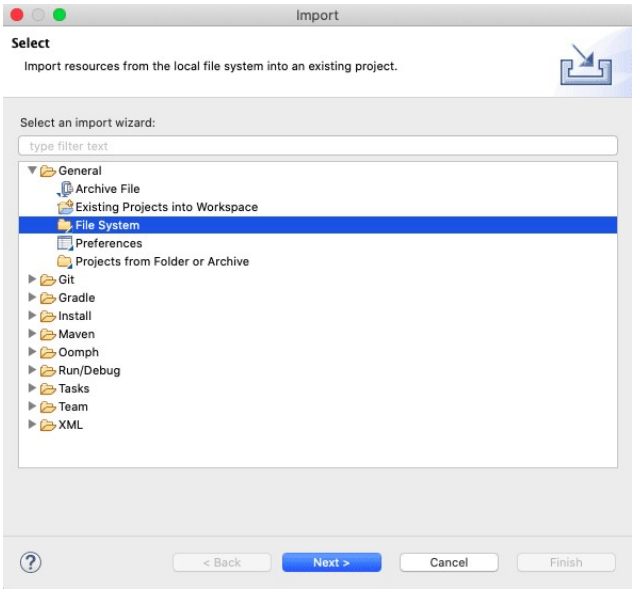
4. Name the project to whatever you feel suitable, then press Finish:



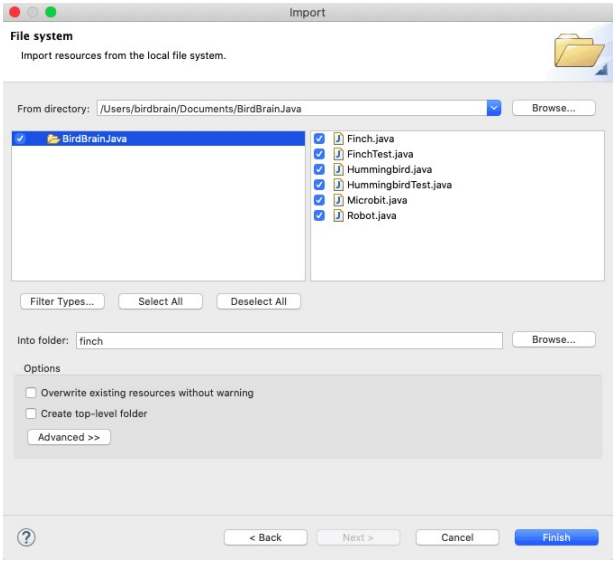
5. If Eclipse asks if you want to create a module-info.java file, just click “Don’t Create”.

6. Now, import the BirdBrain libraries you downloaded on step 3 of the previous section. To do so, click on File -> Import and select File System.



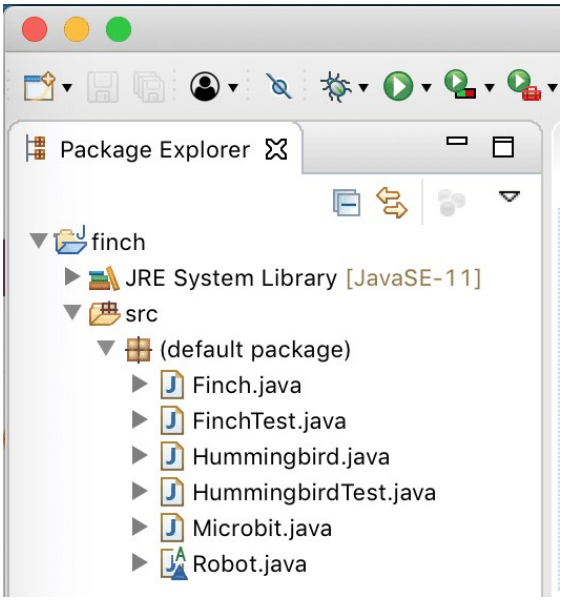


and then select the location of the BirdBrain.zip file, and click Finish (remember to check the box next to the folder name on the left panel):



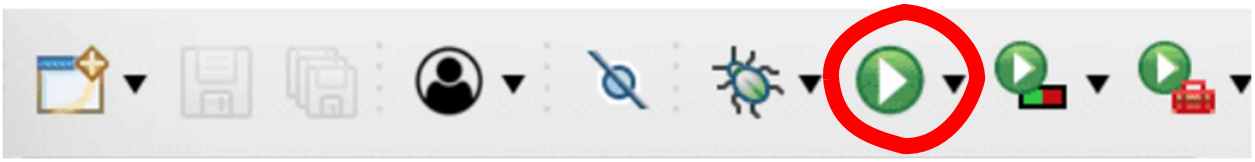
7. Eclipse will copy six files into your project: the classes for the Finch, Hummingbird and micro:bit (Robot.java, Finch.java, Hummingbird.java, and Microbit.java) and two test files (FinchTest.java and HummingbirdTest.java).

   Select these files in Eclipse and drag them into the src folder:



8. Once the files are in the src folder, open FinchTest.java (by double clicking on its name).

   To test that everything is working properly, run that test program, by clicking on the green button with a play icon in the Eclipse toolbox at the top of the screen.



   The Finch's beak should blink 10 times.

   Now you are ready to start writing Java programs with the Finch!!!