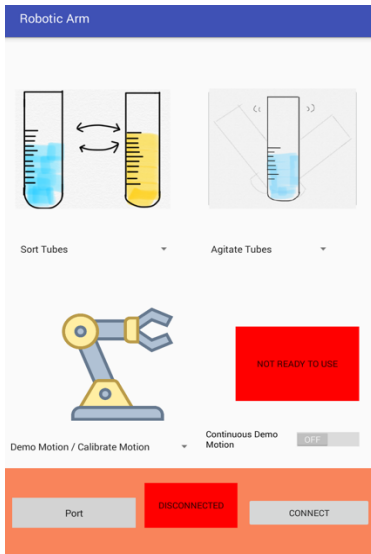


Robotic Arm Application



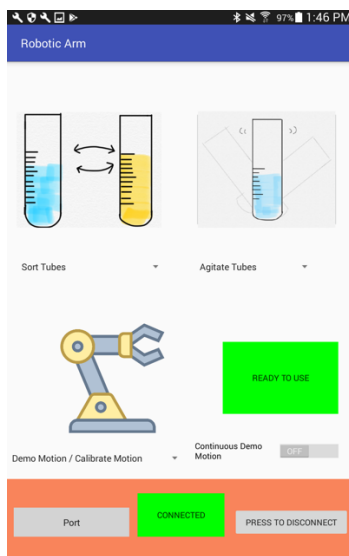
The following is a quick guide on how the companion application is used with the Microsemi Robotic Arm App-Note made with the SmartFusion2 FPGA board.

- When opened, the app will pull up a screen like the one shown below:

Connected devices

RNBT-CB7A
00:06:66:87:CB:7A
RNBT-DECB
00:06:66:7A:DE:CB
William's MacBook Pro
A4:5E:60:C6:09:0A
RNBT-E403
00:06:66:73:E4:03

- As seen, two red buttons are shown saying, “NOT READY TO USE” and “DISCONNECTED”. Press the connect button and the following screen will show up with the different bluetooth ID’s to connect to. Select the one as shown on your Bluetooth Thing.



- Once connected the buttons will turn green as shown. This also means that the FPGA is sending the heart beat message “K” through. The pictures shown afterwards show the different functions the Robotic Arm is able to perform. These functions can be chosen from the drop down lists.

Moving the tests tubes from one point to another. Whenever a function is chosen such as “A to B,” the character ‘A’ is sent through and the FPGA then receives the character and the robotic arm performs the function. The same is done for the agitate and calibration motion and demo motion. Similarly whenever the button for Continuous Demo Motion is set to on, the letter ‘I’ is sent continuously.

