How To: Arduino Assembly Pt. 4 – Ardbark Programming and Testing

McDannald Lab

MATERIALS

- Completed Ardbark
- Mediabridge HI-SPEED USB 2.0 CABLE Ardbark Cord
- Lab Laptop

PROGRAMMING:

1. On the lab laptop, open the Arduino program.
2. Next, open the "Ardbark" sketch. This should open multiple tabs in the program. If you do not see all of these tabs, restart the program.
3. Plug in the ardbark via the USB cable.
    a. You should be able to see a green "on" light on the waveshield.
4. Upload the program by clicking the forward arrow button.
    a. The program may stop and tell you to change the serial port. If a window pops up suggesting you use a different port. Just click "Okay" and let the computer try that port. If this ever doesn't work – Let someone know! We could, potentially, run out of ports someday.
5. Once the program is done uploading, close the Arduino program and unplug the Ardbark. It is ready to be tested in a behavior box!

TESTING:

1. Turn on the Behavior Computer in the testing room of your choice
2. Plug in your new Ardbark
3. Turn on the power strips to the behavior boxes

    *The Ardbark will not function properly unless the computer is turned on first. *

4. The Ardbark should start playing all of the available sound cues when the power strips to the boxes are turned on. After that, it should STOP playing. If a repeating motif continues to play, the crimp pins and/or breadboard have unstable connections and must be checked/re-soldered.
5. If the Ardbark stops playing in step 4, Run PRTEST/BEHAVIOR TEST to assure the Ardbark is communication properly with MED PC. (See directions below)

MED PC TEST

1- Open MED PC – IV
2- (Open Book Icon) Load PR TEST/ BEHAVIOR TEST in appropriate Test Box
3- (Fairy Dust Icon) Issue PR TEST/ BEHAVIOR TEST in appropriate Test Box (you should hear the box Fan turn on when the program is issued.
4- Poke your finger in the Nose poke hole to begin the test program:
A food pellet will be released followed by three 10s sound cues (broadband click, trumpet & futuristic phaser), Light Cue presentations, and a foot shock – Then the program will close by itself and the box fan will turn off.