Instructions for modified ROBucket

Introduction

These instructions are intended to be supplementary to the original ROBucket instructions from Devarakonda et al. (2016). Here, we describe how to assemble the alternate mounting for the modified nose-poke housing.

Required Items

Reciprocating saw
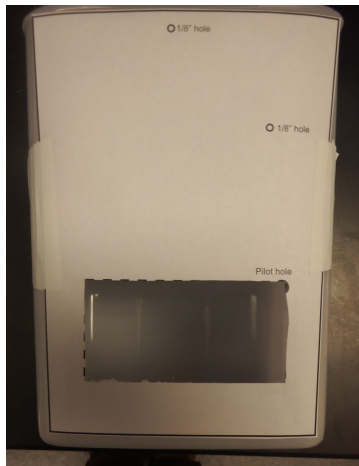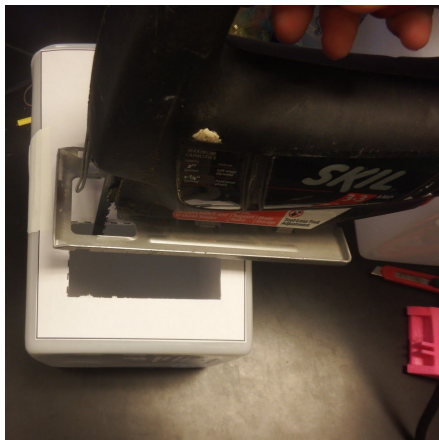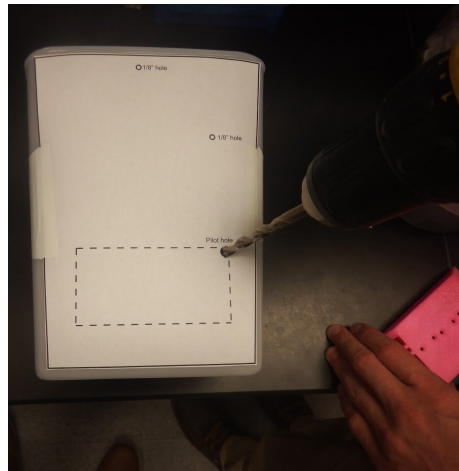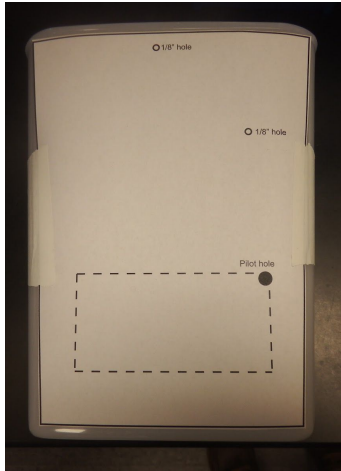Modified 3D printed housing (printed from file "mROBucket housing.stl")
ROBucket template (printed from file "Front panel mROBucket.pdf")
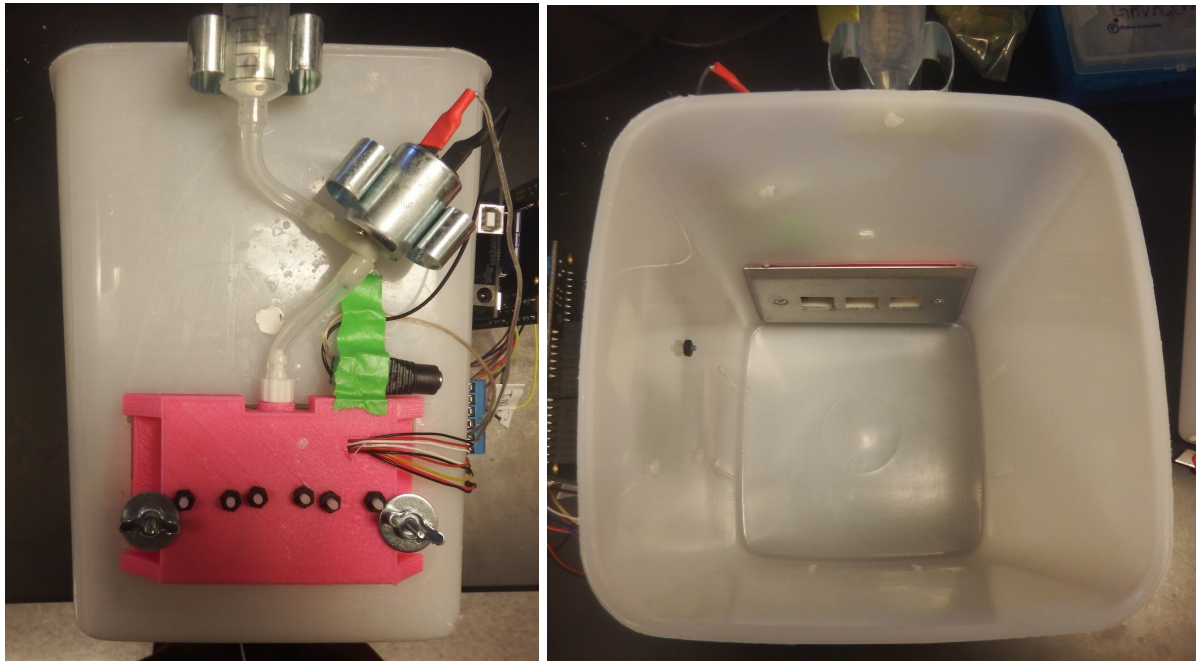Washers ⅛ x ¾ inch (2)

Instructions

Step 1. Cut port for nose poke housing

- Print out template sheet and attach to plastic bucket
- Drill pilot hole
- Use reciprocating saw to cut port

Step 2. Assemble the box
- Fit the nose-poke housing into the port
- Secure faceplate using the screws, wingnuts, and washers

Step 3. Finish ROBucket assembly
- Continue the ROBucket assembly from as described by Devarakonda et al. (2016)

Original ROBucket
Devarakonda, K., Nguyen, K. P. & Kravitz, A. V. ROBucket: A low cost operant chamber based on the Arduino microcontroller. 1–7 (2016).

Instructions for ROBucket Isolation Housing

Required Materials

144 x 42 x 2 cm board (3)
34.5 x 41 x 2 cm board (3)
35.5 x 42 x 2 cm board (4)
Door knobs (4)
Port covers (4)
42 cm hinges (4)
Magnet-clips (4)
80mm computer fan (4)
12 v power supply (1)
Screws (36)

Required Tools

3-inch hole saw
Drill
Saw

Instructions

① Pre-cut fan ports on back wall and doors

② Assemble initial 5-wall box

③ Insert 3 divider walls

④ Mount fans on back exterior wall, connect to power supply

Drill holes for power cords

⑤ Mount doors

⑥ Mount magnets

⑦ Mount port cover and door knobs

⑧ Build and stack additional rows as necessary