

**Supplementary Table 1: Bill of Materials**

<b>Part #</b>	<b>Item</b>	<b>Serial Number</b>	<b>Amt.</b>
<b>3D Printed Parts: Shapeways.com</b>		<b>(contact authors for *.cad files)</b>	
<b>1</b>	Sipper Tube Mounting Bracket		<b>1</b>
<b>2</b>	ACRoBaT Housing		<b>1</b>
<b>3</b>	Peristaltic Pump Mount		<b>1</b>
<b>4</b>	ACRoBaT Mounting Plate		<b>1</b>
<b>5</b>	Joystick Mount		<b>1</b>
<b>6</b>	Joystick Handle		<b>1</b>
<b>7</b>	Joystick Attachment		<b>1</b>
<b>PCB from OSHPark</b>		<b>(contact authors for *.brd files)</b>	
<b>1</b>	LED Board		<b>1</b>
<b>2</b>	Joystick Board		<b>1</b>
<b>Sparkfun</b>			
<b>1</b>	Arduino Pro-Micro 5V/16MHz	DEV-12640	<b>1</b>
<b>2</b>	Arduino Stackable Header - 6 Pin	PRT-09280	<b>4</b>
<b>3</b>	N Channel Mosfet (TO-220)	COM-10213	<b>1</b>
<b>4</b>	Ribbon Crimp Connector - 6-pin (2x3, Female)	PRT-10651	<b>4</b>
<b>5</b>	Ribbon Cable - 6 wire (15ft)	CAB-10646	<b>1</b>
<b>6</b>	Resistor 330 Ohm 1/6 Watt PTH - 20 pack	COM-11507	<b>1</b>
<b>7</b>	BNC Connector - Right Angle	PRT-10550	<b>2</b>

<b>8</b>	DC Barrel Jack Adapter - Breadboard Compatible	PRT-10811	1
<b>9</b>	Header - 2x3 (Male, 0.1")	PRT-12807	4
<b>10</b>	LED - Super Bright White (25 pack)	COM-09850	1
<b>11</b>	SMD LED - White 1206 (strip of 25)	PRT-12621	1
<b>12</b>	SparkFun Capacitive Touch Breakout - AT42QT1010	SEN-12041	2
<b>13</b>	Break Away Male Headers - Right Angle	PRT-00553	1
<b>14</b>	Break Away Headers – Straight	PRT-00116	1
<b>15</b>	Wall Adapter Power Supply - 12VDC 600mA	TOL-09442	1
<b>16</b>	USB microB Cable - 6 Foot	CAB-10215	1
<b>17</b>	Thumb Joystick	COM-09032	0

## Adafruit

<b>1</b>	0.1" 36-pin Strip Right-Angle Female/Socket Header (5 pack)	1542	1
<b>2</b>	Peristaltic Liquid Pump with Silicone Tubing	1150	1

## Digikey

<b>1</b>	MAX6966	MAX6966AEE+-ND	2
<b>2</b>	TXB0108PWR	296-21527-1-ND	1
<b>3</b>	APEM Inc. TSAA1S00A Joystick	1040-1030-ND	1

## McMaster Carr

<b>1</b>	Type 316 Stainless Steel Hex Nut 4-40 Thread Size, 1/4" Wide, 3/32" High (Pack of 100)	90257A005	1
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<b>2</b>	Type 316 Stainless Steel Pan Head Phillips Machine Screw 4-40 Thread, 3/4" Length (Pack of 50)	91735A113	1
<b>3</b>	Type 316 Stainless Steel Pan Head Phillips Machine Screw 4-40 Thread, 7/16" Length (Pack of 50)	91735A105	2

#### Other

<b>1</b>	Acrylic behavioral arena approximately 12" x 8" x 16" (height x width x length)
<b>2</b>	Sipper Tube <a href="http://www.altdesign.com/products/rodent-ivc/straight-open-stainless-steel-2-5-sipper-tube/">http://www.altdesign.com/products/rodent-ivc/straight-open-stainless-steel-2-5-sipper-tube/</a>
<b>3</b>	22 gage wire

#### Assembly Equipment

<b>1</b>	Solder Station
<b>2</b>	Solder
<b>3</b>	Solder Paste (for surface mount components)
<b>4</b>	Microscope
<b>5</b>	Helping Hands
<b>6</b>	Wire Stripers
<b>7</b>	Wire Cutters
<b>8</b>	Philips Screwdriver
<b>9</b>	Drill (for mounting ACROBat on behavioral arena)