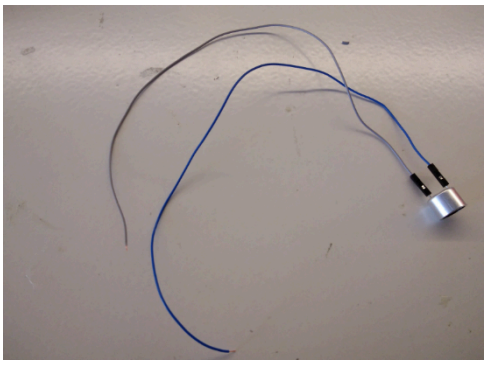
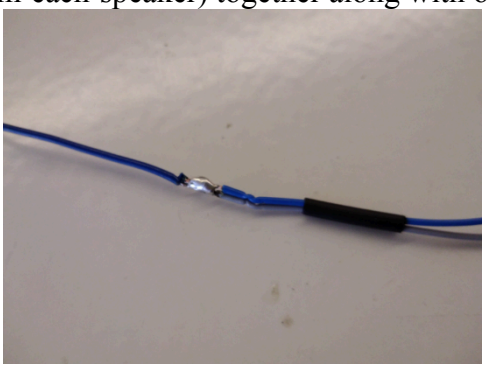
Speakers' setup

Step 1: Select four long female-to-female jumper wires and connect one end of each to the pins of the speakers.

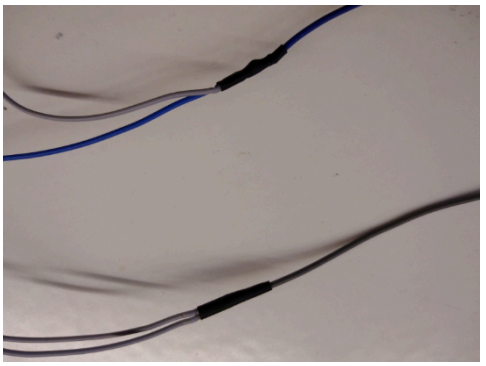


Step 2: Remove the square female heads from the other ends of the wires.

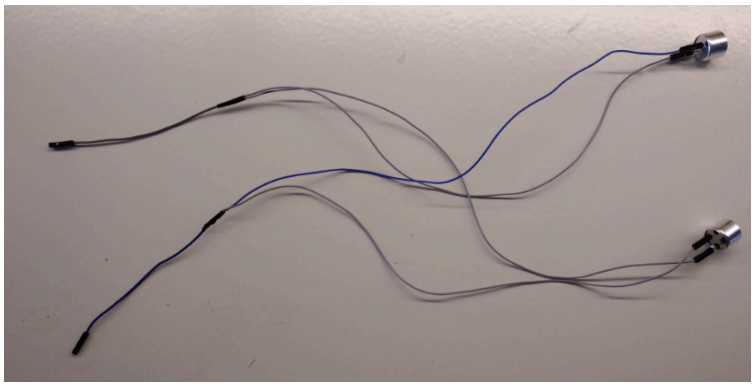
Step 3: Solder the ends of two jumper wire (one from each speaker) together along with one small female-to-female jumper wire (after removing its square female head).



Step 4: Cut a piece of heat shrink tube long enough to cover the exposed wires.

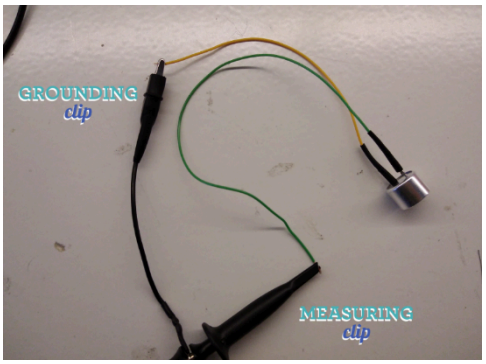


Ready! Time for testing!



Testing the speakers

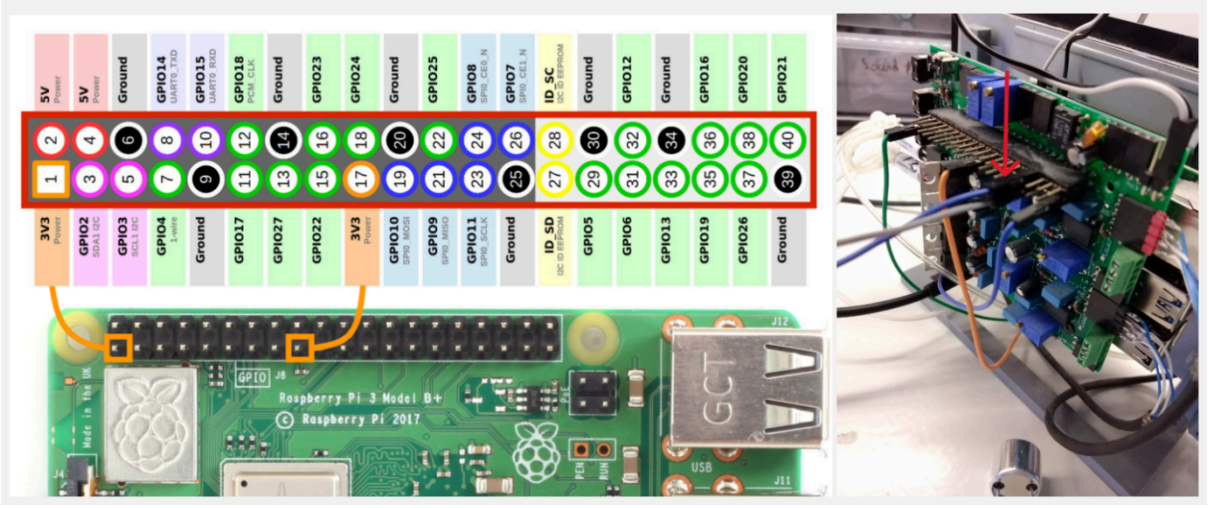
Step 5: Use the oscilloscope and connect one end (*measuring* clip) to one wire of the speaker and the grounding clip to the other wire.



Step 6: Connect your speakers to your Raspberry Pi Pinout. First, go to the EthoPy/Interfaces/ RPPorts.py and look at the "class RPPorts(Interface)". Here, you see which channel corresponds to the RP GPIO pins based on what you want to connect. So, for 'sound' is channel GPIO 13.

```
class RPPorts(Interface):
    channels = {'Odor': {1: 24, 2: 25},
                'Liquid': {1: 22, 2: 23},
                'Lick': {1: 17, 2: 27},
                'Proximity': {3: 9, 1: 5, 2: 6},
                'Sound': {1: 13},
                'Sync': {'in': 21, 'rec': 26, 'out': 16},
                'Opto': 19,
                'Status': 20}
```

Connect one wire of your speaker to **GPIO13** and the other wire to **ground**.



Step 7: Open your RP and run a task with auditory stimuli.