

Sleep detector Hat

- Arduino with a leveling unit, if the leveling system goes over a certain amount for a specific amount of time it will activate the wake-up mechanism and only deactivate once the level goes back to normal range. It will be attached to a hat.
- Other components will be either attached to the hat
- Or will have wires from the hat to dashboard/device
- Arduino has a container that it is fitted in and an outlet for wires .
- Arduino container connected to hat by elastic band.

Sleep detector Hat

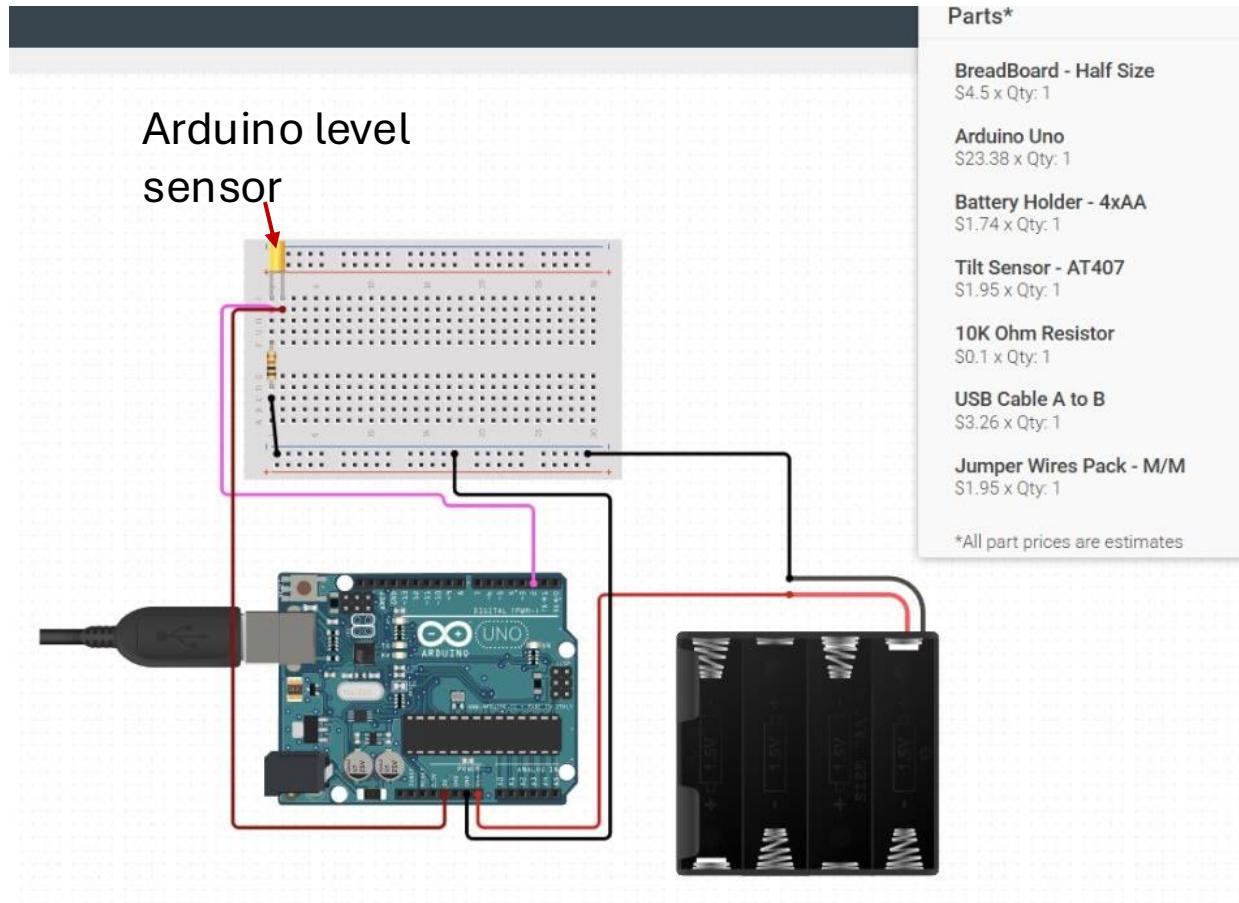
- **Arduino level sensor**

- https://www.google.com/aclk?sa=L&ai=DChsSEwixvw2Vn7iOAxWrOH8AHU00DewYACICCAEOARoCb2E&co=1&ase=2&gclid=EAIaIQobChMlsb79IZ-4kAMVq0B_AB1NNA3sEA0YASABEgl2XPDB_wE&cid=CAASNuRoG63bhpuENL05A9u-Y76Ko6DY9U3cvSwcJOKKNpPSqSZ4pZvOgz02ytSOb7DVkUOeD0a2g&cce=2&category=acrcp_v1_32&si=g=AOD64_1KN4b1RUFd44KCrM1KzXTmJFZJMg&ctype=5&q=&nis=4&ved=2ahUKEwjLgfVmVn7iOAxV3kWoFHVIRMzEQ9aACKAB6BAgDEA8&adurl=

- **Wires**

- https://www.ebay.com/itm/174945261771?_skw=wires+96-117cm&itmmeta=01K816XNYENFIW99G1M374O0WW&hash=item28bb8cd8cb:g:Mu sAAOSws2dgJqK9&itmprp=enc%3AAQAKAAA8FkgFvd1GGDu0w3yXCMi1eXnfOWnmNsVQidFfUL4MK96X2oC035XPYu ec3rVsgmcbgqV1unVE%2BuOKYgTYwcwly68INQ%2B48LBs6nVi%2FzVRxLQHCVcXm9TbhWTjFBjwE2 2xuF99u2duEde%2FiaHoHrTEJ2tmZcHjm%2FGvGEs3jnAj6uL%2BhoquAbf%2Bs9Og3Hj04qvdxAcZleu XvfSEet2cbPdv4BFbjS4kc8D3%2ByCOypZtCuu7wTWqgbM1vuGy18fe5ITXjQDprU%2BfS6esABSOjkC1 TmpNh1GKI719ZGabFOp4bt1esCt%2FnaWCY0A%3D%3D%7Ctkp%3ABFBMqt_2psBm

Arduino system

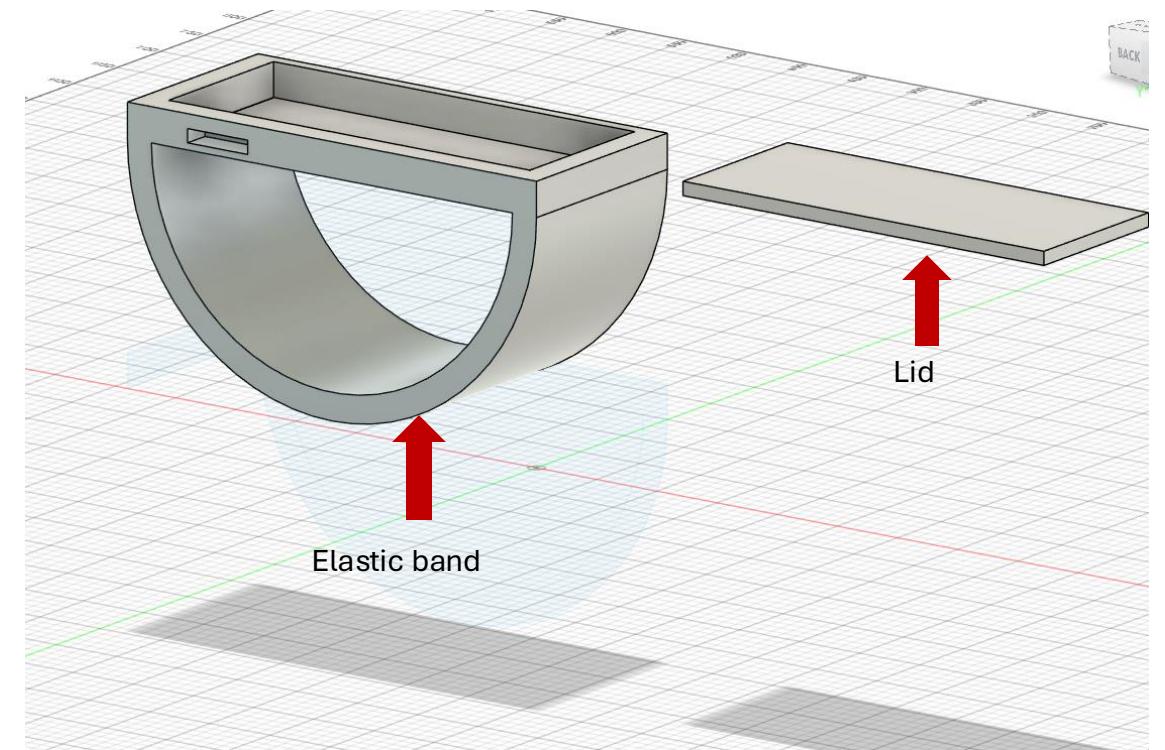


Sleep detector Hat

Hat



Arduino mount that straps the hat



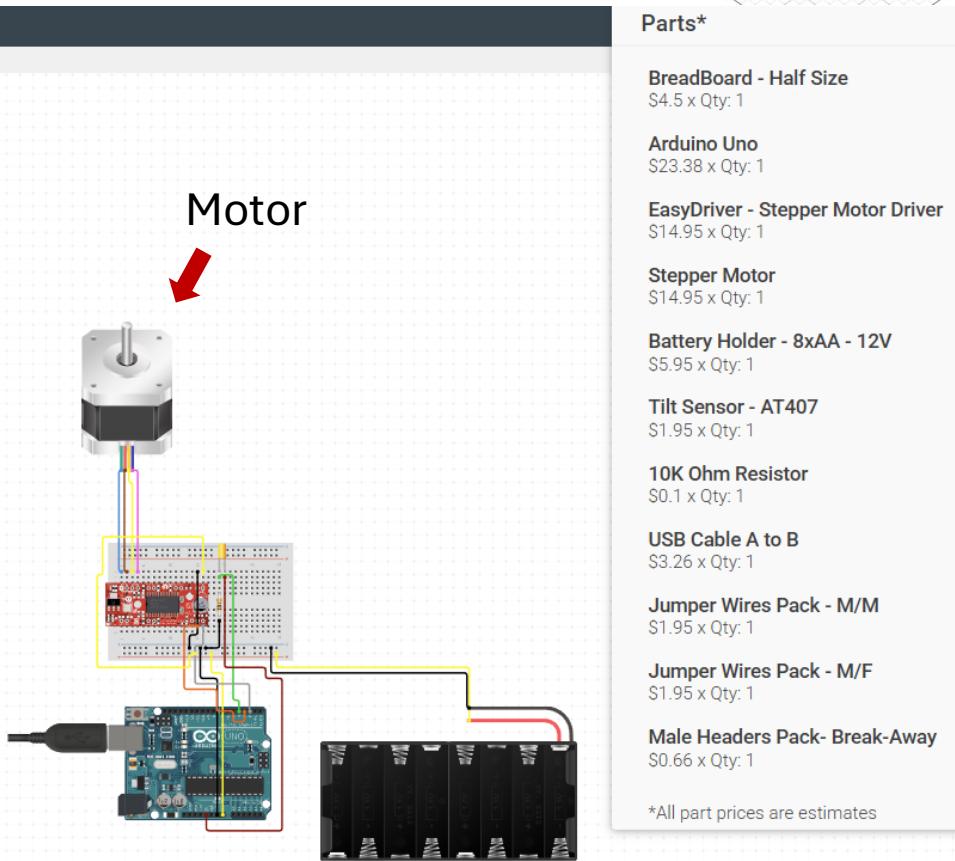
Hat spray

- System attached to dashboard via suction cup
- The suction cup had a 3d printed holder on top to hold the fart spray and motor. Wires will be connected to the hat discretely.
- Once activated the Arduino sends signal from hat through wire to dashboard holder and activates motor to a ring clamp that tightens to press an atomizer button to spray fart spray.
- It will spray once and if the signal is still active it will wait for a few second before spraying again.
- After the first spray motor will reverse to loosen a bit before spraying again if needed

Hat spray



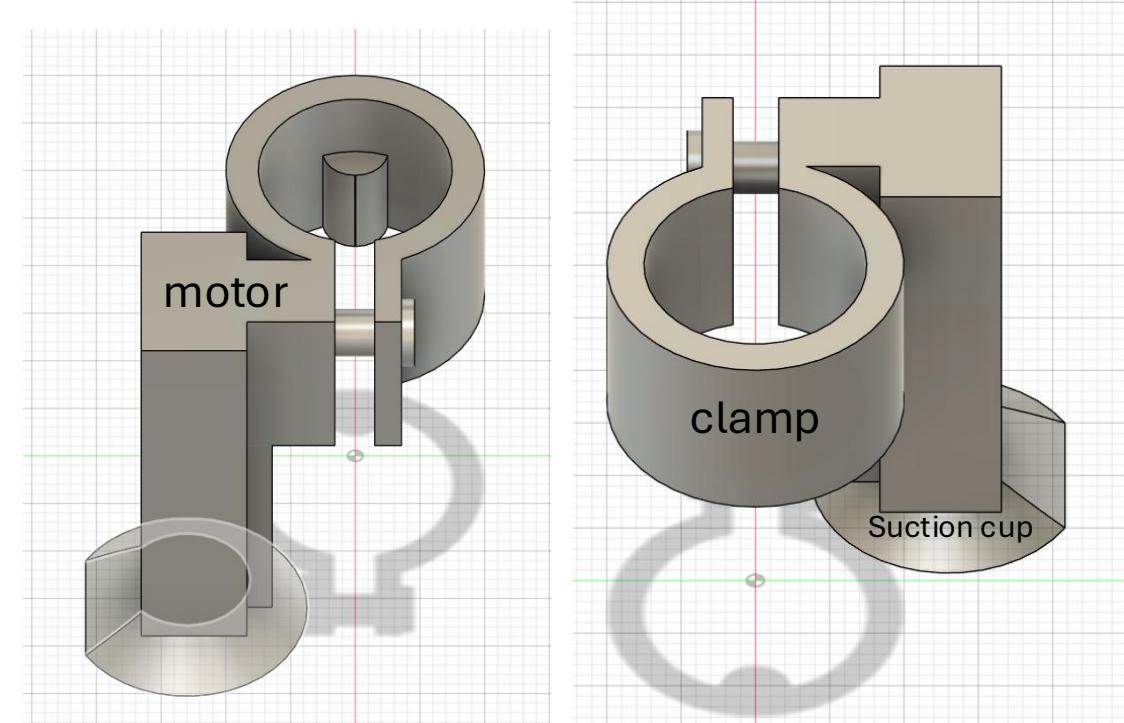
Arduino system



Fart spray

• [https://www.google.com/clk?sa=L&ai=DChsSEwimNSd2rQqQAxUchFoFHe7DBksYAC1CCAEQAxOcdnU&os=1&ase=2&clcid=EAlaQobChI8JiUgt6kAMVHlRaB3uwwSfEAQVASABEgLejPD_BwE&ei=BVP6aN3MnWUwtkPhLTU8Aw&cid=CAASlwHkaLhzpdklodWhua4BVp-WZEovlKeDveYprnEL5-aNj2B9WNngXL5ZEddeOAN5P9Xi6eTSjNsRQWYXZnoGmP6FnrlDX2BfNTGZSGgAzfR07z7e8xlrZKSYrfknaGDstOUMiVuZl7hRdrv_Z2QxvnL7bdydrWPg-FmQOX54AT1E7fylN6hLxi57jGjnCKDuSI&cce=2&category=a_rcp_v1_32&sig=AOD64_3zOeMAAt4fEl3U2h38BZ2qMhKA&ctype=58q=&nis=4&qid=28&ved=2ahUKEwidM6q2rqQAxU1SjABHOQaFc4Q9aACKAB6BAgGEA8&adur="](https://www.google.com/clk?sa=L&ai=DChsSEwimNSd2rQqQAxUchFoFHe7DBksYAC1CCAEQAxOcdnU&os=1&ase=2&clcid=EAlaQobChI8JiUgt6kAMVHlRaB3uwwSfEAQVASABEgLejPD_BwE&ei=BVP6aN3MnWUwtkPhLTU8Aw&cid=CAASlwHkaLhzpdklodWhua4BVp-WZEovlKeDveYprnEL5-aNj2B9WNngXL5ZEddeOAN5P9Xi6eTSjNsRQWYXZnoGmP6FnrlDX2BfNTGZSGgAzfR07z7e8xlrZKSYrfknaGDstOUMiVuZl7hRdrv_Z2QxvnL7bdydrWPg-FmQOX54AT1E7fylN6hLxi57jGjnCKDuSI&cce=2&category=a_rcp_v1_32&sig=AOD64_3zOeMAAt4fEl3U2h38BZ2qMhKA&ctype=58q=&nis=4&qid=28&ved=2ahUKEwidM6q2rqQAxU1SjABHOQaFc4Q9aACKAB6BAgGEA8&adur=)

Spray bottle holder



Hot sauce hat

- Hot sauce bottle attached to side of hat with tubing from hot sauce into mouth. Once activated a pump will be turned on and pump hot sauce into mouth until deactivated.
- System attached to bowler hat
- Connected to Arduino level system
- System contained within the hat
- Hot sauce can be replaced if needed

Hot sauce hat

- Pumps

- <https://www.amazon.com/Peristaltic-Titration-Miniature-Measuring-Instruments/dp/B0C7KWGGBK?th=1>
- https://www.amazon.com/Kamper-Peristaltic-Hydroponics-Nutrient-Analytical/dp/B07GWJ78FN/ref=pd_rhf_dp_s_ci_mcx_mr_hp_d_d_sccl_1_2/135-6434728-00200132pd_rd_w=y6P9f&content-id=amzn1.sym.c5dee08d-b11d-4c8c-b272-714fd8f96f22:amzn1.symc_1c8a41e-053b-4bdc-9570-9f81c17d9d85&pf_rd_p=c5dee08d-b11d-4c8c-b272-714fd8f96f22&pf_rd_r=62QFPWX4MCQS1QHPR6&pf_rd_wg=rHWYF&pd_rd_r=ddee cf78-eea-b-49cf-baa6-29db92f65ff&pd_rd_i=R07.GW.J78FN&pssc=1

- Hat

- <https://www.amazon.com/Bowler-Vintage-Cloche-Upturn-Church/dp/B0CX5GNQ8Y>

- Hot sauce

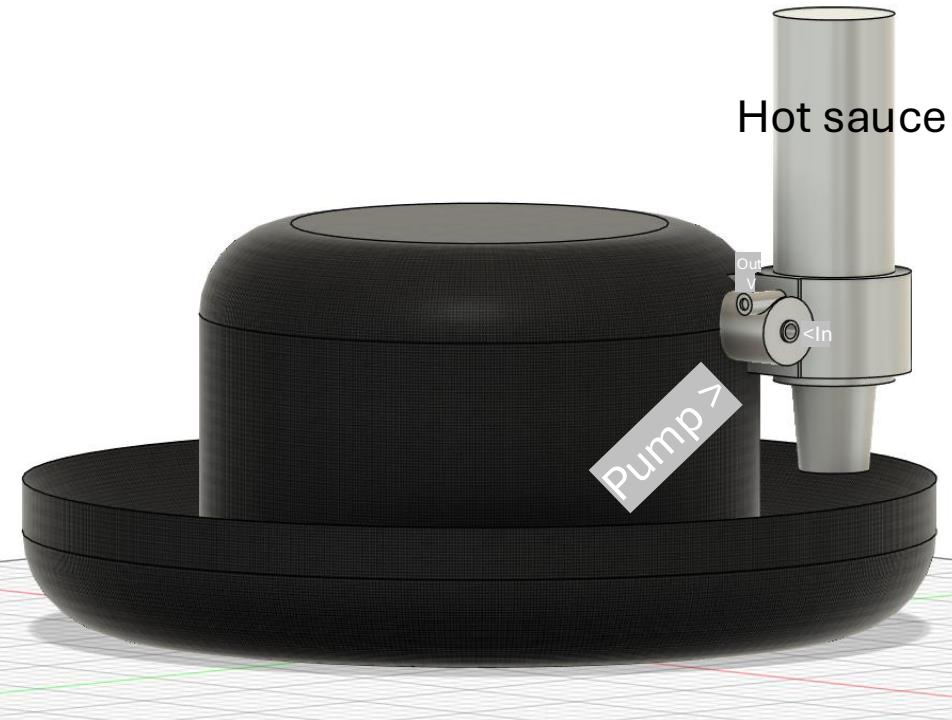
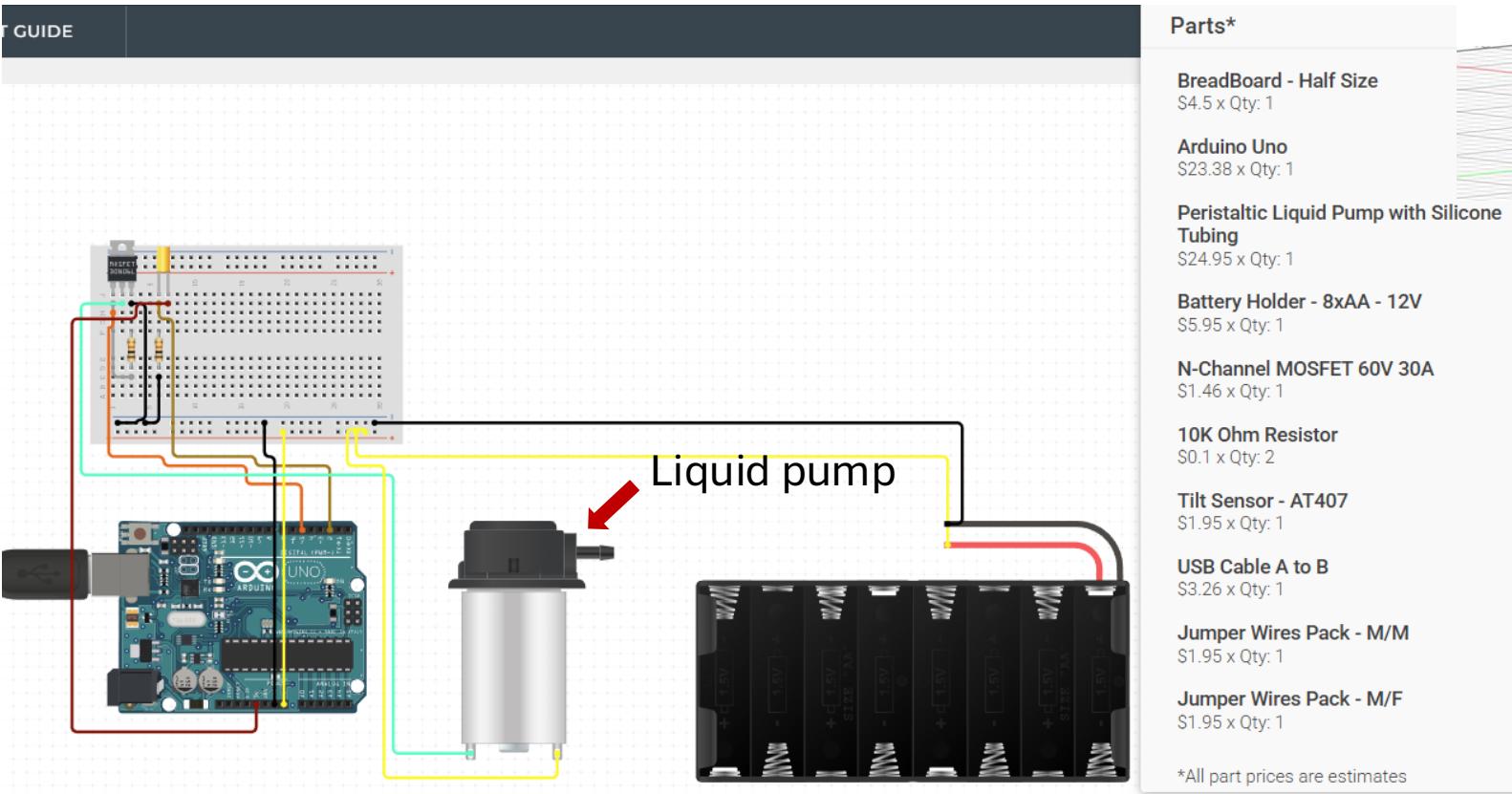
- <https://www.walmart.com/ip/The-Original-Louisiana-Brand-Hot-Sauce-12-fl-oz/53952986?wl13=706&selectedSellerId=0&wmlspartner=wipa>

- Tubing

- https://www.amazon.com/Assortment-2mm-3mm-4mm-5mm/dp/B0CC312XMC/ref=sr_1_42?dib=eyI2IjoiMSI9W2red5afR2mWalUUzIx15K43knAlVknsln9khM3kYclJe5nfVGZ2o mH5VdDleksuFd51xfoYQGxgWdB8d04zP370t7DsBtF7lhYvsOBxAbezCDK7yWnDC7jB0-C3lKFfnPt7_c089GR6hUndCgX0qOq7I2TQfXA6ACGi3stBQsPSkAMKh01KlVT14w8TP30c4Fg5knQDqjY_5YFhbQqMT17fHS7jIAndkikFU8JF_v4QNQsWhJNFEHX3l4dhG16a631IP08IB_U-lTKRbpo&dib_tag=se&keywords=2 mm%2Bplastic%2Btubing&qid=1761668263&srt=8.4&th=1

Hot sauce hat

Arduino system



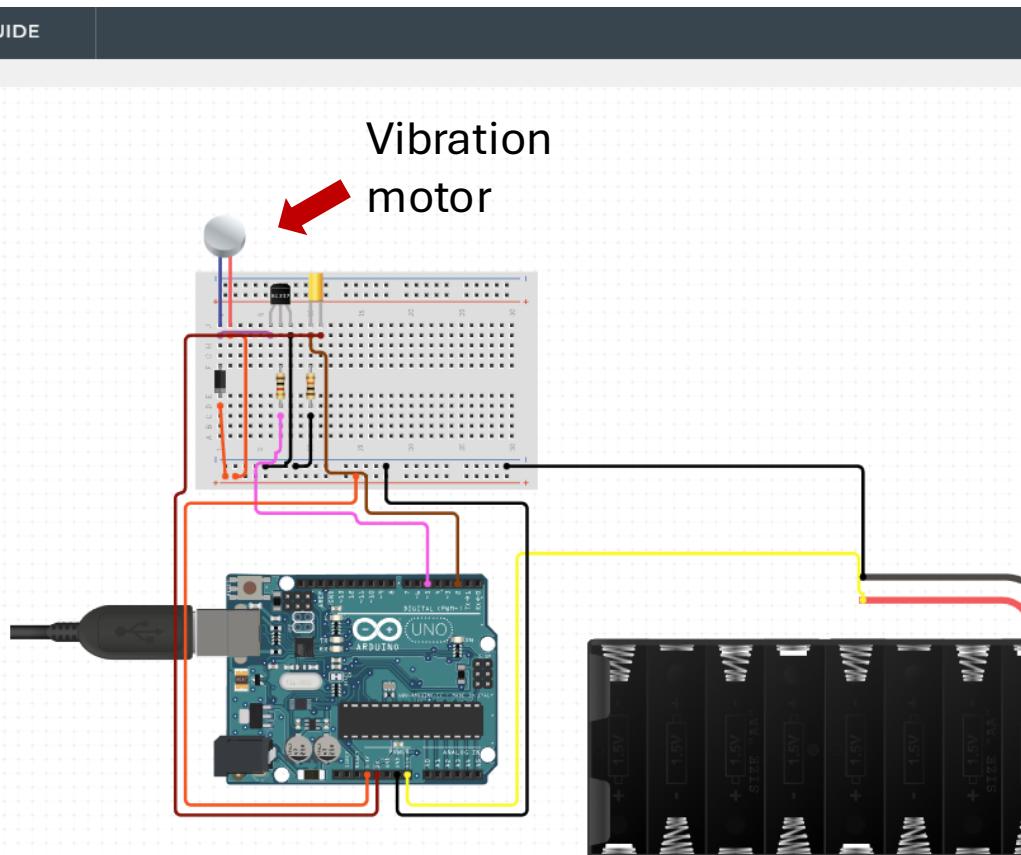
Vibration

- Connected to Arduino level system on hat
- Will be a bracelet that is separate from the hat system, but the 2 systems will be connected through an interface.
- Once conditions are met for the hat detection system the bracelet will activate and vibrate very intensely until deactivated

- Vibration
- <https://www.digikey.com/en/products/detail/dfrobot/FIT0774/14322639>
- Velcro wrist band
- https://www.amazon.com/Self-Adhesive-Securing-Buckles-Adjustable-Reusable/dp/B088FH128G/ref=sr_1_1?dib=eyJzdjcIjoiMSI9.RH569wohxXEq4yCTeHMD6ICfEPaqnIX7ITYHw/ejdjS_Emv37IOwkkgNPXeqiuDuIQ86W7HhbB7Phn38wKujPM7WKEjYT4rkgaX8hjx609PQnI4hX9hugJz4fQJuA5ms0lMa8gDGv15cRqGfVwq5M0mAlInqCKv7B2hmSBSwb5F5Abxl0_X5CeUG5NBO/RMRrFLIVPt;YmZQonjS82UfLrYHux9gcKTSBAR1mfAUhfYW4m97G4t2q-GuSAK-E_HF4MTFWrgBSap5zNzB47Of_9Itv8uRXGUJMSRcol2aUQg_PVdI-www1.jg45PvpPBzRCxiclgV3r28GbvqInScy108&dib_tag=se&keywords=velcro%2Bbracelet&qid=1761235905&r=8-1&th=1

Vibration

Arduino system



Parts*

BreadBoard - Half Size
\$4.5 x Qty: 1

Arduino Uno
\$23.38 x Qty: 1

Vibration Motor
\$1.95 x Qty: 1

Diode Rectifier - 1A 50V
\$0.11 x Qty: 1

Battery Holder - 8xAA - 12V
\$5.95 x Qty: 1

Transistor - NPN BC337
\$0.27 x Qty: 1

1K Ohm Resistor
\$0.1 x Qty: 1

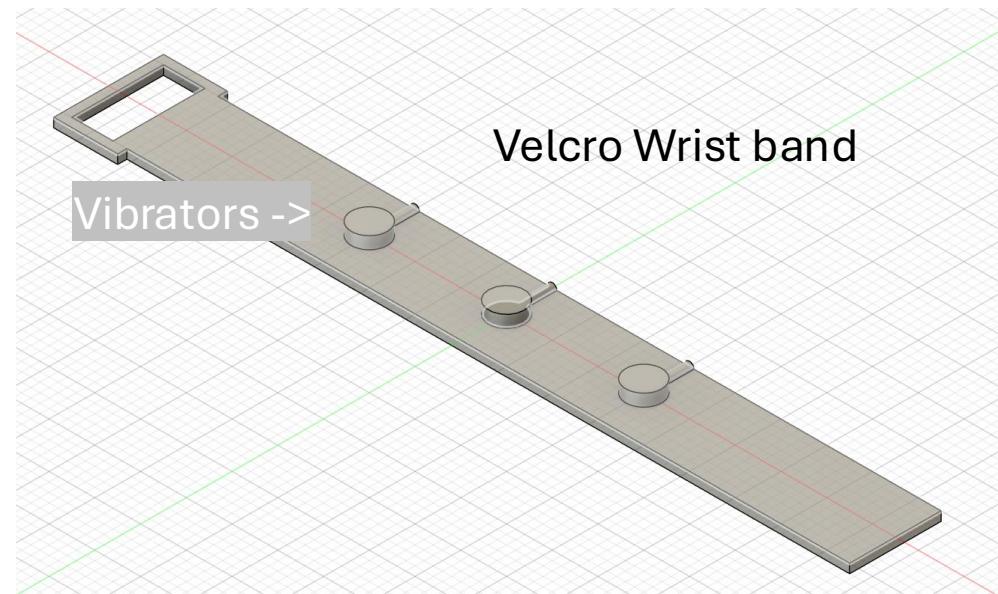
Tilt Sensor - AT407
\$1.95 x Qty: 1

10K Ohm Resistor
\$0.1 x Qty: 1

USB Cable A to B
\$3.26 x Qty: 1

Jumper Wires Pack - M/M
\$1.95 x Qty: 1

Jumper Wires Pack - M/F
\$1.95 x Qty: 1

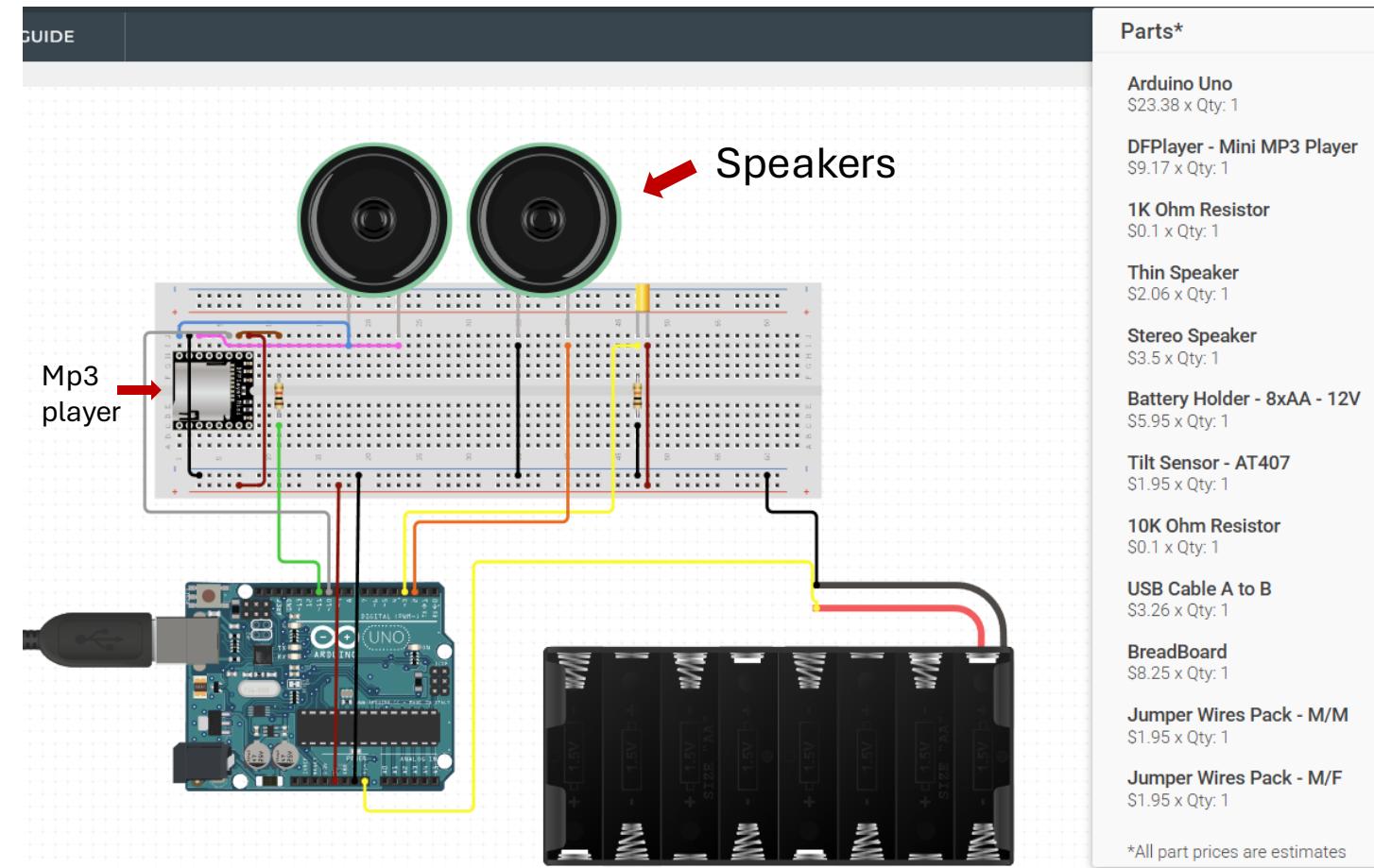


Beeping hat

- Arduino connected to the hat with speakers and an mp3
- Once activated it will sound an alarm until deactivated
- You can also upload your own personal alarm if they get use to the noise
- Speaker will be placed close to each ear
 - Arduino
buzzer noise
 - https://www.ebay.comitm/354152746885?chn=ps&mkcid=28&google_freelisting_action=view_item

Beeping hat

Arduino system



Hat

