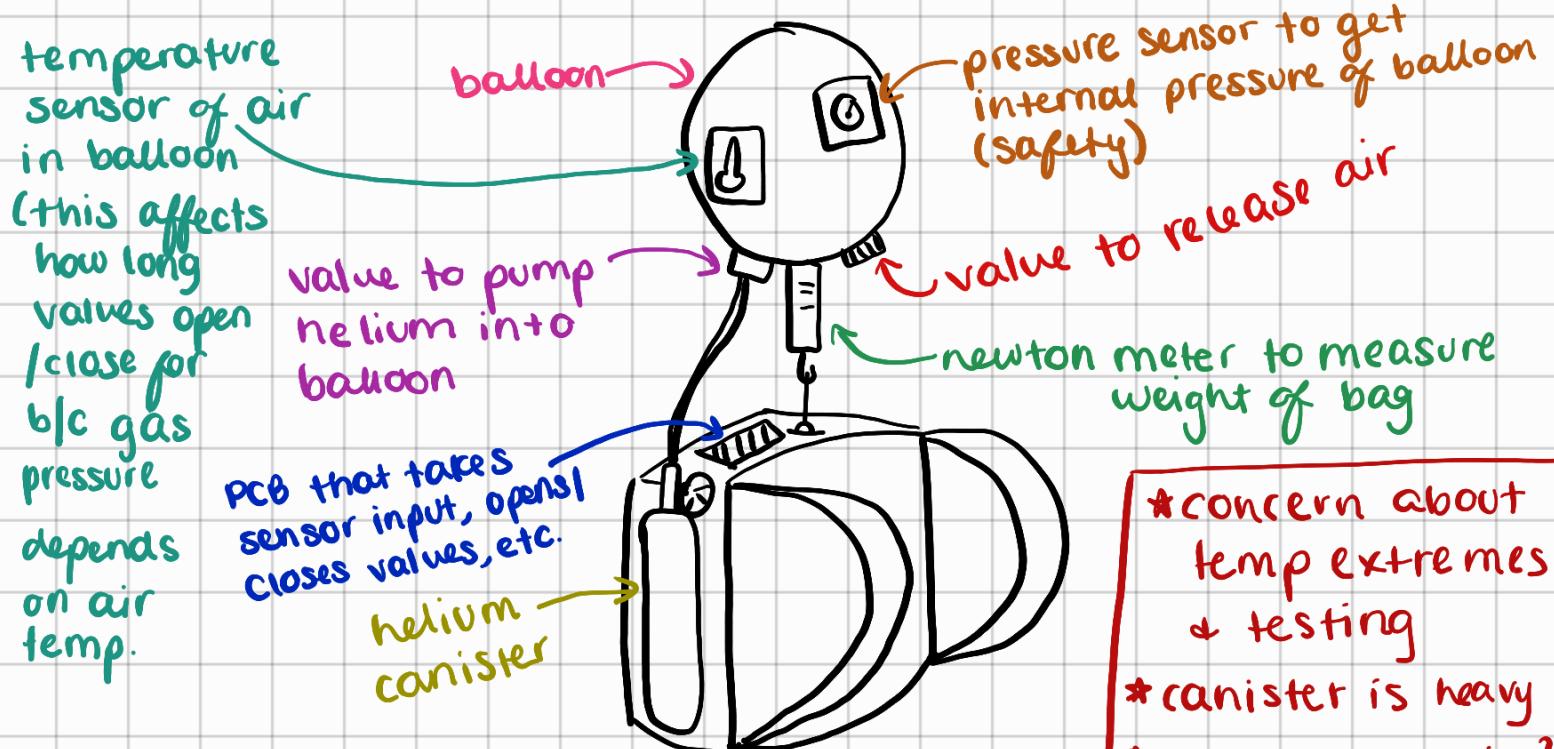


POST

① Automated weight compensator for backpacks

↳ backpack too heavy? No worries! This will resolve that

- * Attach a balloon (or other lifting device) to a backpack to lift it a bit
- * Backpack must maintain a "felt" weight (weight felt by wearer) of 3lbs, uses control system to maintain this.



- * Use microcontroller / PCB to continuously take weight measurements of bag via Newton meter, and open / close values of balloon to let in helium or let it escape. Maintain backpack weight of 3lbs. Use other sensors to ensure correct amount of helium is let in/out of balloon, and to ensure that no max ratings are exceeded for anything.

② Smart Water Bottle

Change but POST

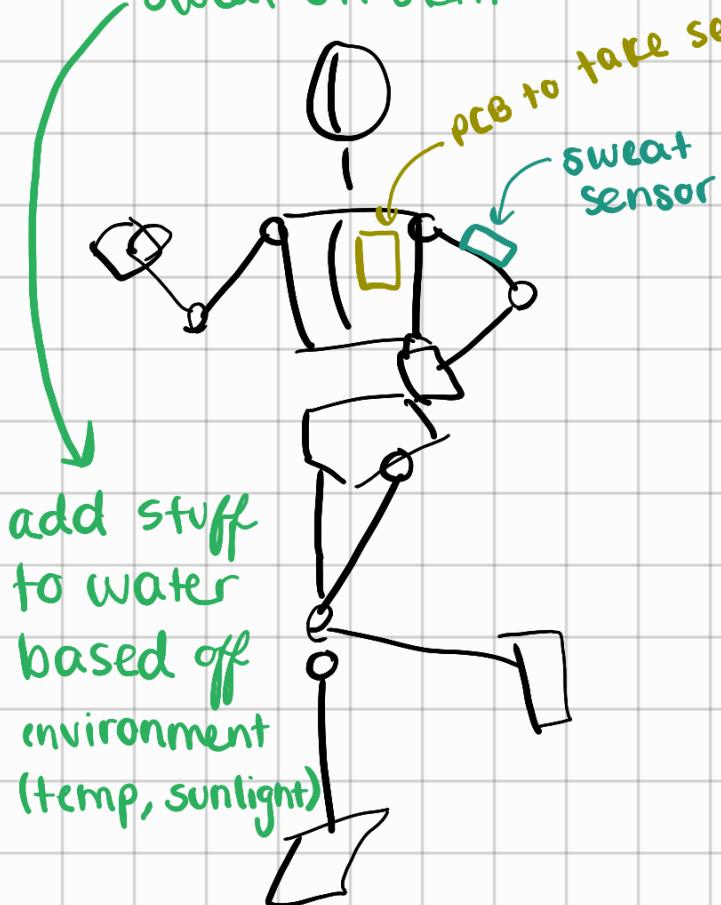
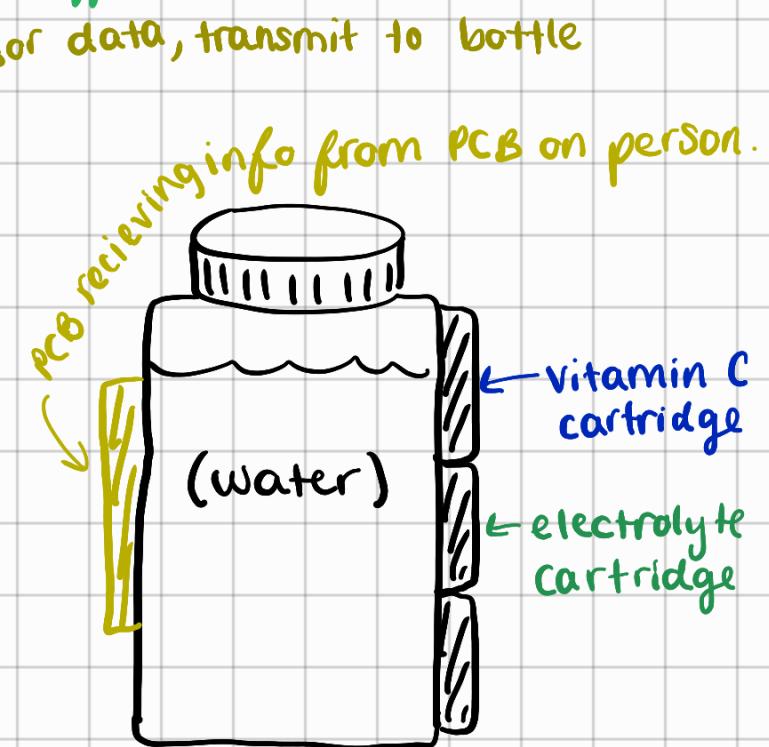
↳ Contains a wearable device which monitors the contents of your sweat, and sends signals to a Smart water bottle to inject nutrients (vitamins, electrolytes) into the water in response to any red flags in your sweat.

* wear a device on your body which tracks how much you sweat and the different chemicals in your sweat.

↳ 99% of sweat is water, and the other 1% contains urea, uric acid, ammonia, lactic acid, vitamin C, etc.

* smart water bottle will take this info, and eject electrolytes/vitamins into your water if the sweat reading reveals that you need it.

* administer stuff based off heart rate, temperature, sweat on skin



* too small to detect stuff
* concern about getting sweat sensor

③

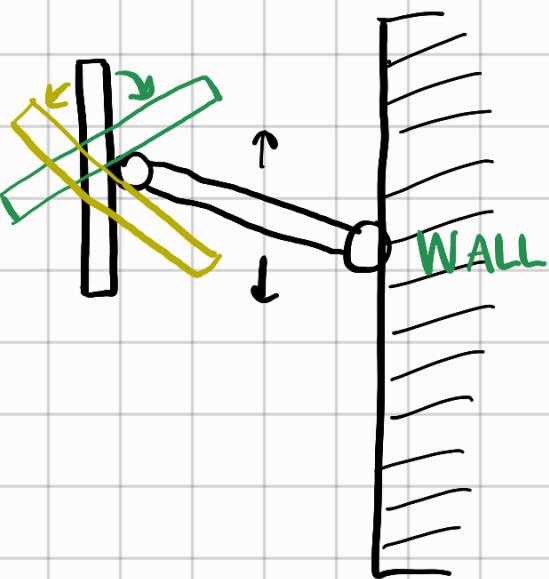
Ergonomic TV

No Post

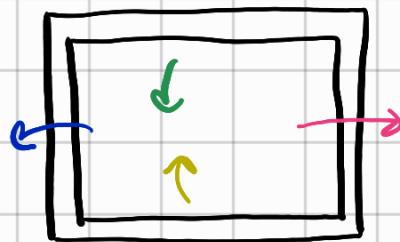
↳ TV that automatically moves into the optimal position for the user to view

- * the user can either wear a device, or a camera can be attached to the TV to monitor the viewer's movements
- * the TV will be attached to a robot arm/ mount that can move in the x,y, and z directions. The TV can also spin and angle itself up/down/left/right.

side view



front view



④ Street Cleaning Robot!

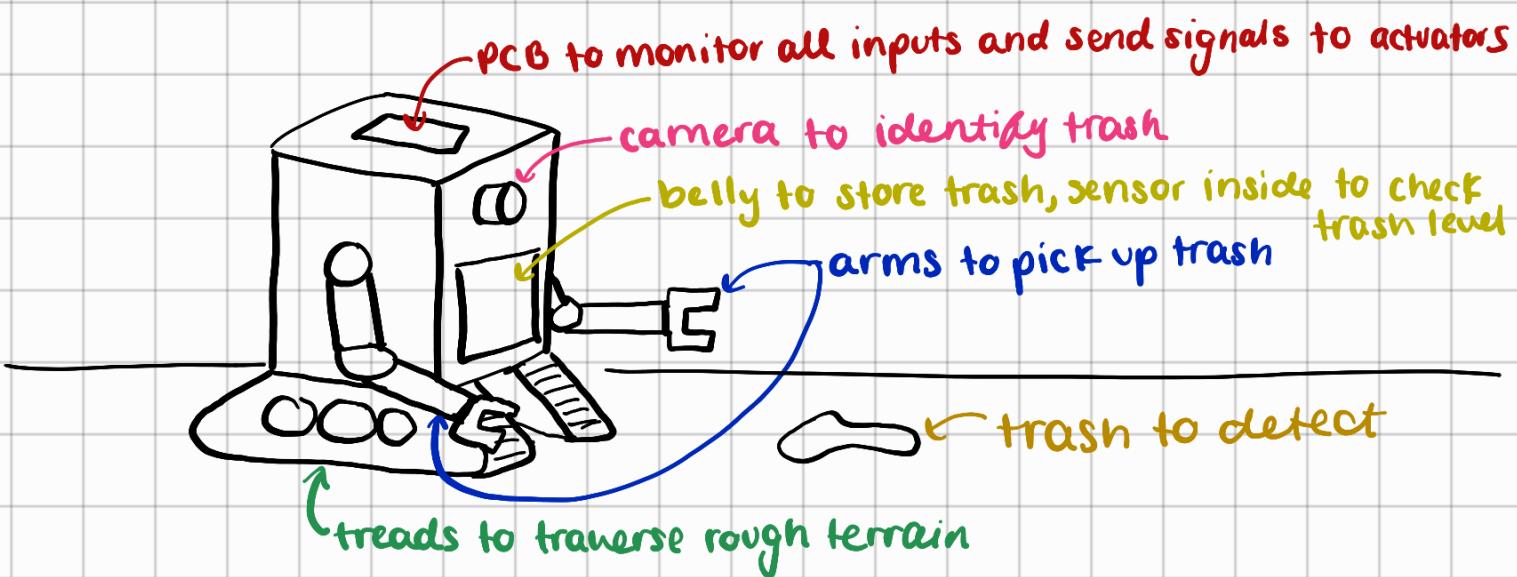
No Post

↳ a durable all-terrain robot which can travel throughout a city/suburb and pick up trash!

* robot will be able to identify obstacles in its path of travel and get around them.

* robot will use a camera and will scan to recognize trash, and will store this trash in its belly.

* Once belly trash is full, robot will return home where it can unload trash

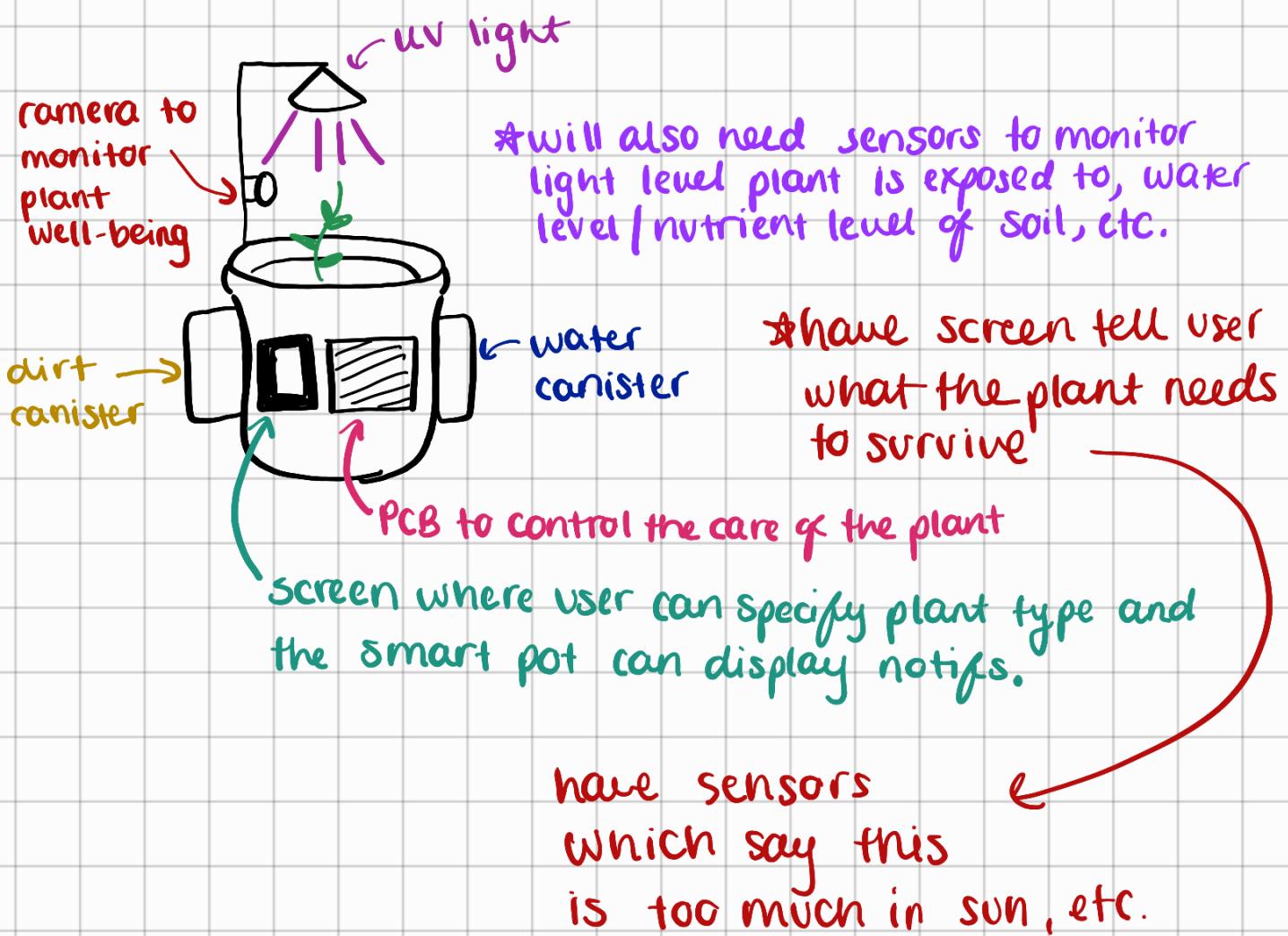


* too hard to do, a lot like roomba

⑤ Smart Plant Pot!

POST

- ↳ SUCK at Keeping plants alive? This is for you!
- * tell the smart pot what type of plant you have, and the smart pot will take care of it for you!
- * Smart pot contains a UV light, water canister and dirt canister.
- * smart pot will send out warnings if one of the canisters is running low
- * smart pot can have an auto-harvest feature for herbs!
- * smart pot can use DSP to identify any disease in the plant, and advise the user on how to combat it!

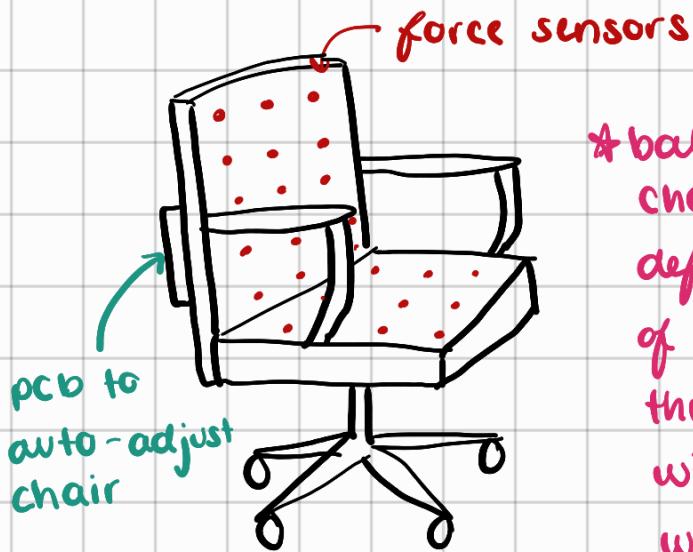


⑥ Smart Chair

No Post

↳ basically, an office chair that acts like a sleep number bed. The chair adjusts to your needs for maximum comfort

- * the office chair is lined with a bunch of sensors which detect the amount of force on a specific section of the chair.
- * if the force is very large within a small area, the chair can auto-adjust to achieve max comfort. Or, if the force is very low in an area, the chair auto-adjusts to fit you (ex: lower lumbar support)



* balloons are located inside chair which can auto inflate/deflate to ensure that the weight of the user is evenly distributed throughout the chair. Each balloon will have a pressure sensor which will aid in determining when the inflating balloon has come in contact w/ the user.

* can have 2 modes: auto-adjust mode or manual mode.