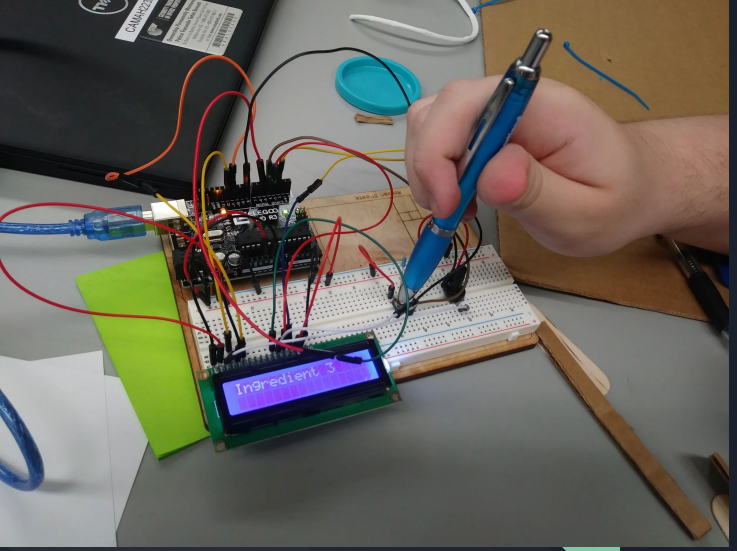


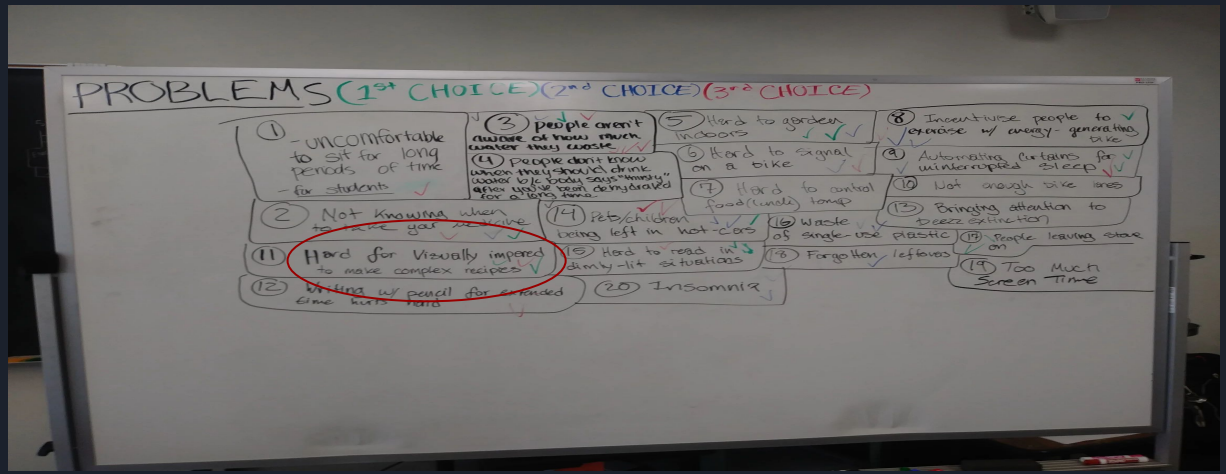
KitchenAID

Members: Miles, Nick & Rowan
Mentor: Station

Our Problem:

- Difficult for visually impaired people to cook for themselves
- Low Vision or Blind people that want to cook
- Alters user's perception, and enhances ability to sense information needed for cooking

"Tune In" - Inventions that Alter Perception or Bring Attention

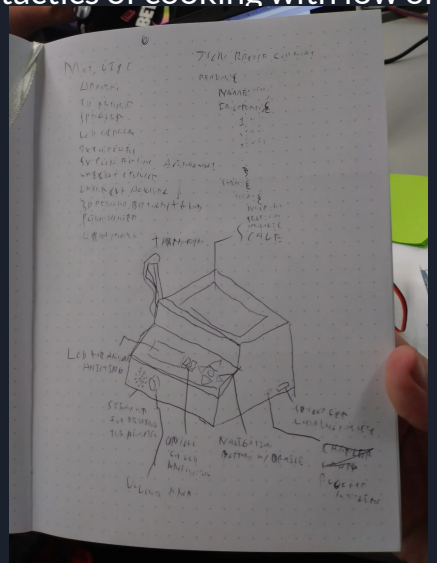


Design Process

- Designers tried to put themselves in the position of the user to find what moments might prove difficult in preparing food.

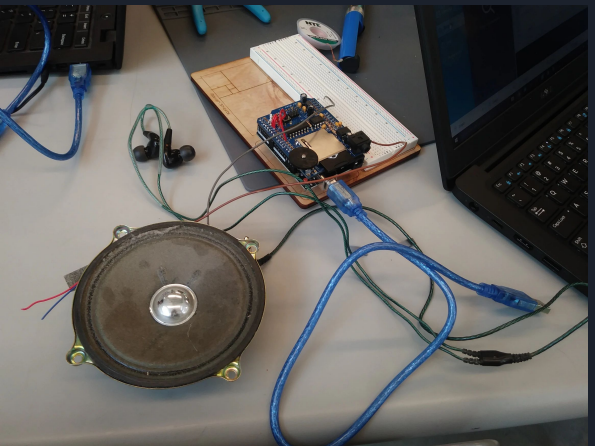
  Find alternatives to tasks traditionally accomplished visually.

- Research was done on techniques and tactics of cooking with low or no vision in order to integrate into widely used methods.



History and Context

- Online recipes or recipe books are made to be read, not heard. Many rely on visual cues and text-to-speech is difficult to pace.
- There are already talking things to help with visually impaired people cooking
- While many devices exist that aid cooking for the blind, some of them like talking measuring jugs are not as accurate as some people would like.
- It can be hard for blind people to distinguish between ingredients that feel the same.



Solution Requirements and Goals

Minimum:

- Read recipes to the user at a controllable pace
- Connect them to synced devices including--
- A measuring device
- Thermometer
- Audible Labels (Cancelled)

Realistic:

- Read recipes to the user at a controllable pace and be connected to a thermometer

Reach: generated recipes from online content and what is under the realistic goals.

Team Roles

Nick - electricals

- The main challenge for me was being confused on what was being asked of me and having other people do my part

Miles - Mechanical

- I worked on designing and assembling the case, 3D printing the buttons, and deciding the layout of the whole system. The biggest challenge for me was assembling the case.

Rowan - Programing

- I worked on the code for our project, the biggest challenge for me was running into problem after problem.

Techniques and Tools

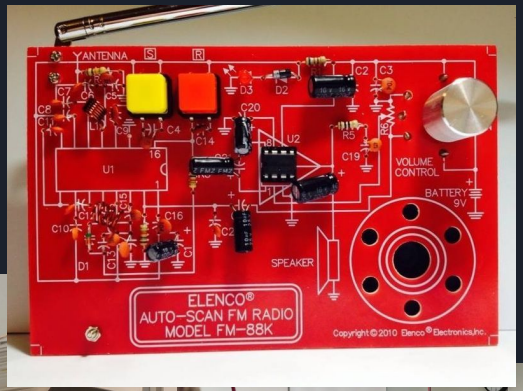
-3D modeling software and 3D printer

-Laser cutter

-Soldering

-Arduino code libraries

Photos?
Yes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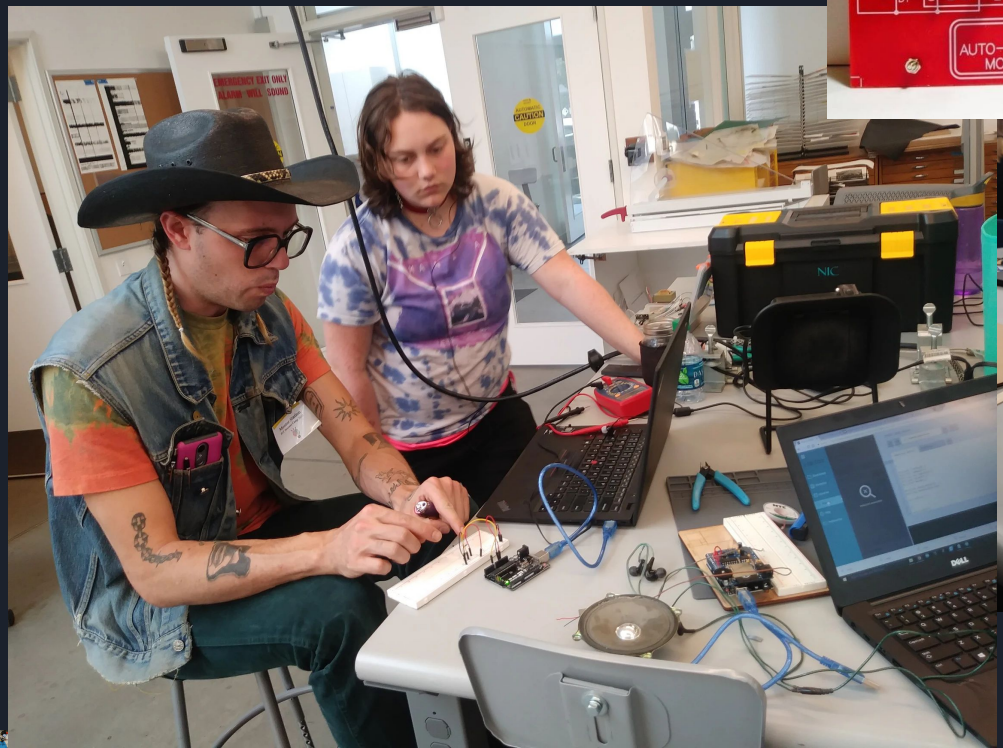

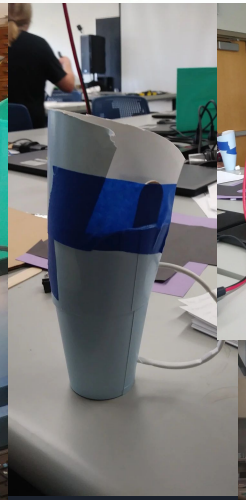

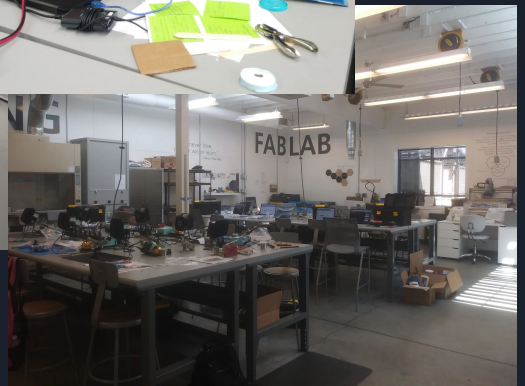
FABLAB

Final Product: (Photo)

Small Kitchen Appliance with multiple sensors for weight, and temperature that reads recipes aloud at the user's pace. The sensors are integrated into the recipe sequence.

Recipes can be read at a user's controlled pace.

Temperature Sensor is able to be used if needed.

User interface is simple.

Challenges:

Nick: Staying Awake

Miles: Assembly

Rowan: Murphy’s Law

Future Improvement

Sensors for weight and volume. Web apps to collect recipe and data or share recipes.

Things we Learned

What did you learn about the invention process, group work, technical skills?

Communication is important even within specialization.

Overlooked details can halt everything.

It can be tough!

Q&A

Any Questions?