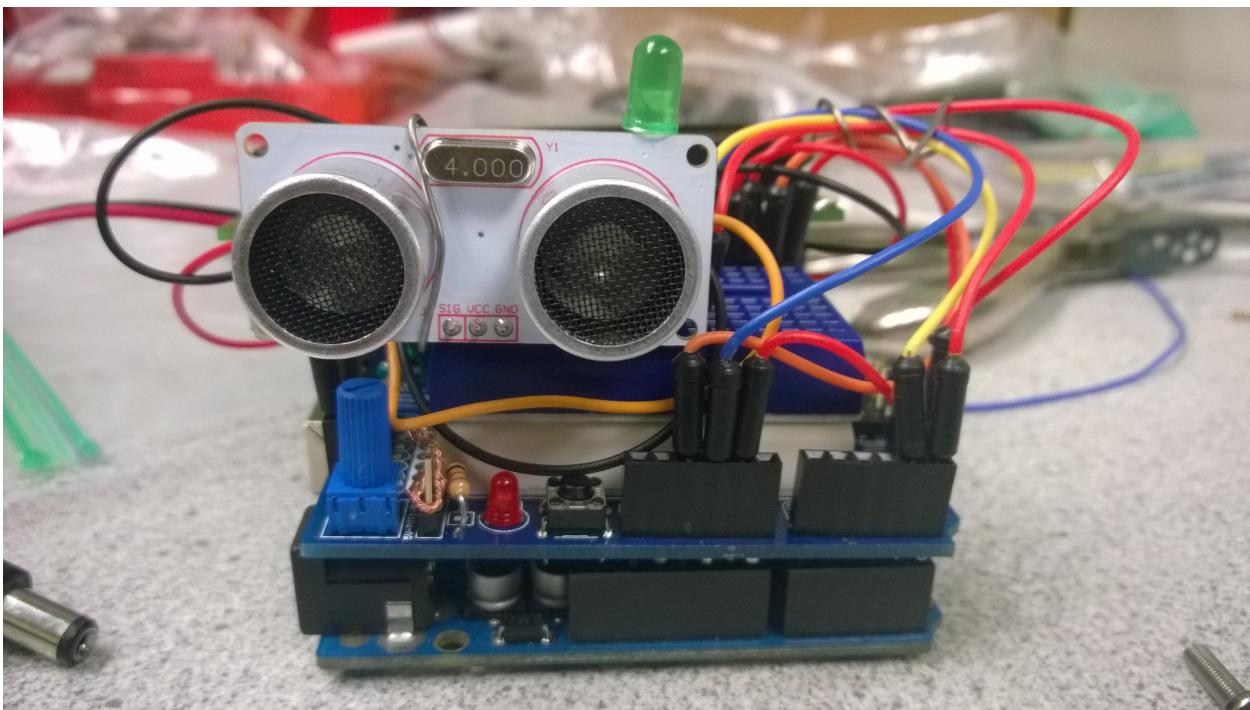


LAVICCI

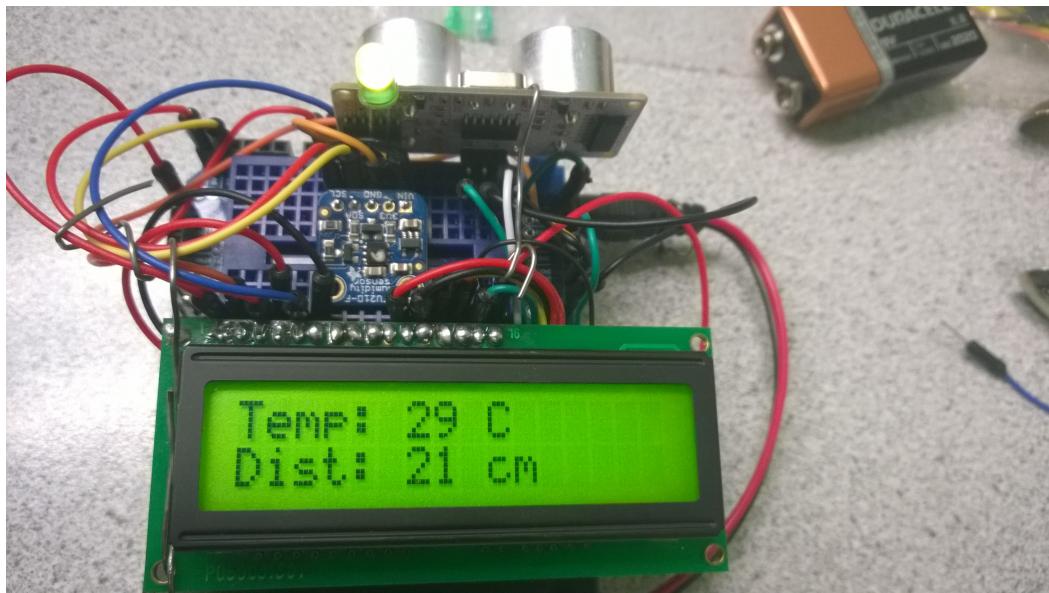


Lavicci; a walking watch for the blind. The cane has been one of the most evolutionary inventions when it comes to enabling the blind to maneuver around. But since its invention, no revolutionary gadget has been made to make maneuvering for the blind easier; until Lavicci.

Lavicci is a battery powered watch that scans the user's environment and alerts them of objects close to them. It utilizes an ultra sonic range sensor that has the ability of detecting objects up to 400 cm away.

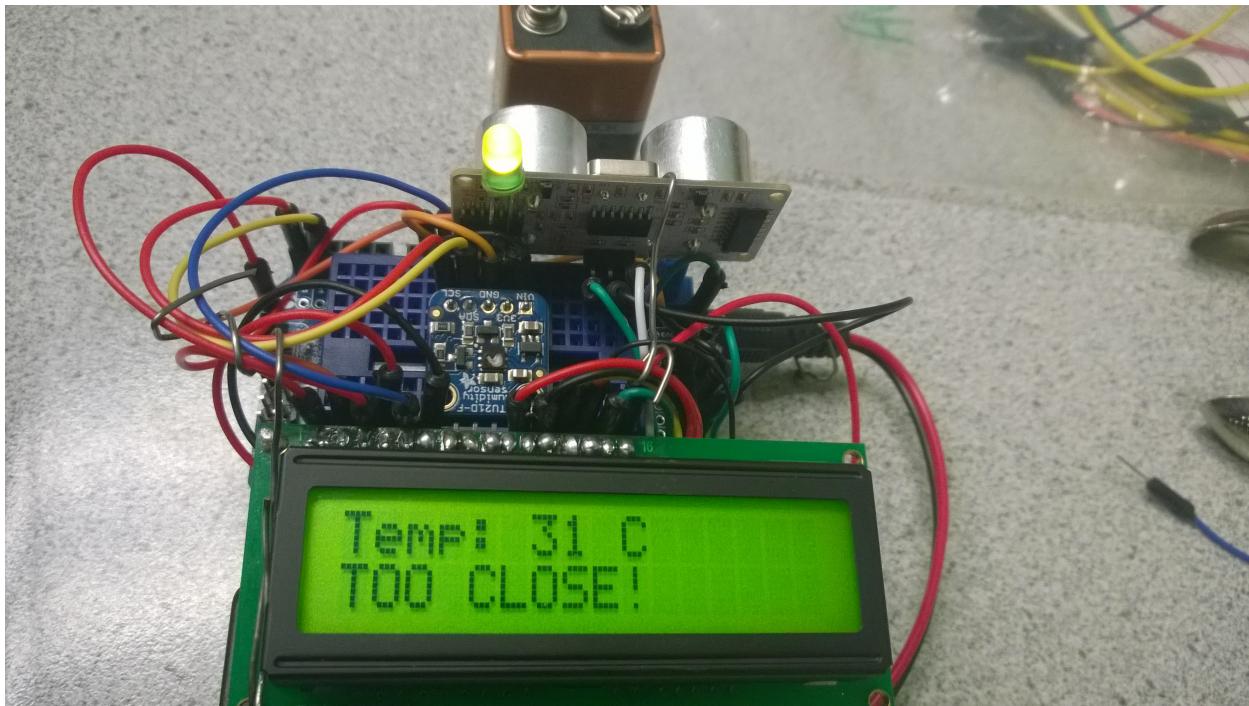


With Lavicci, the user is always kept on alert of his/her surroundings. By utilizing the HTU21D-F digital temperature and humidity sensor, the user is notified of the temperature and humidity of their current location.



Aside from providing the user with a wider scanning radius; in contrast to that of a walking cane, the selling point of Lavicci is its ability to alert the user if they are too close to an

obstacle ahead of them. By default, this distance is set to 5 cm (for testing purposes), but it can be altered to the user's recommendations.



Lavicci was built to be an extremely versatile gadget for the blind with maximal possibilities. For further additions, we plan on integrating a camera and a text-to-speech chip. With the camera, we will be able to scan the users' current environment and convey them via the speech chip. With these additions, we pretty much will be eliminating the need for a cane altogether.



ROLES

Abdullah Bushnag: He worked on the electrical side of things. This includes the wiring and setting up of the project from the mechanical point of view.

Emil Shirima: I programmed the whole system and ran unit tests on it.