



# Vision

by theNinjaCode

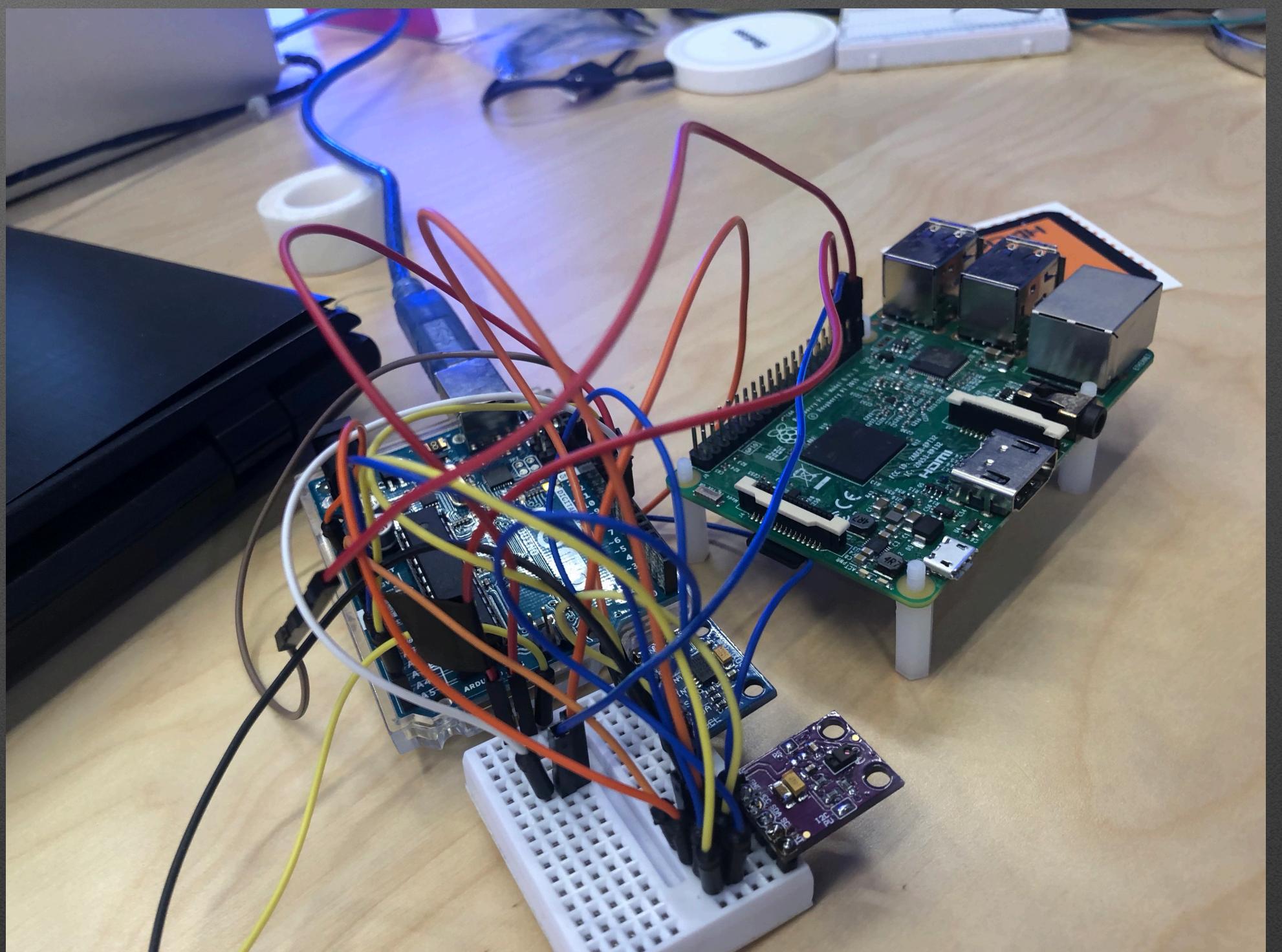
# Why?

- to help people with visual impairments



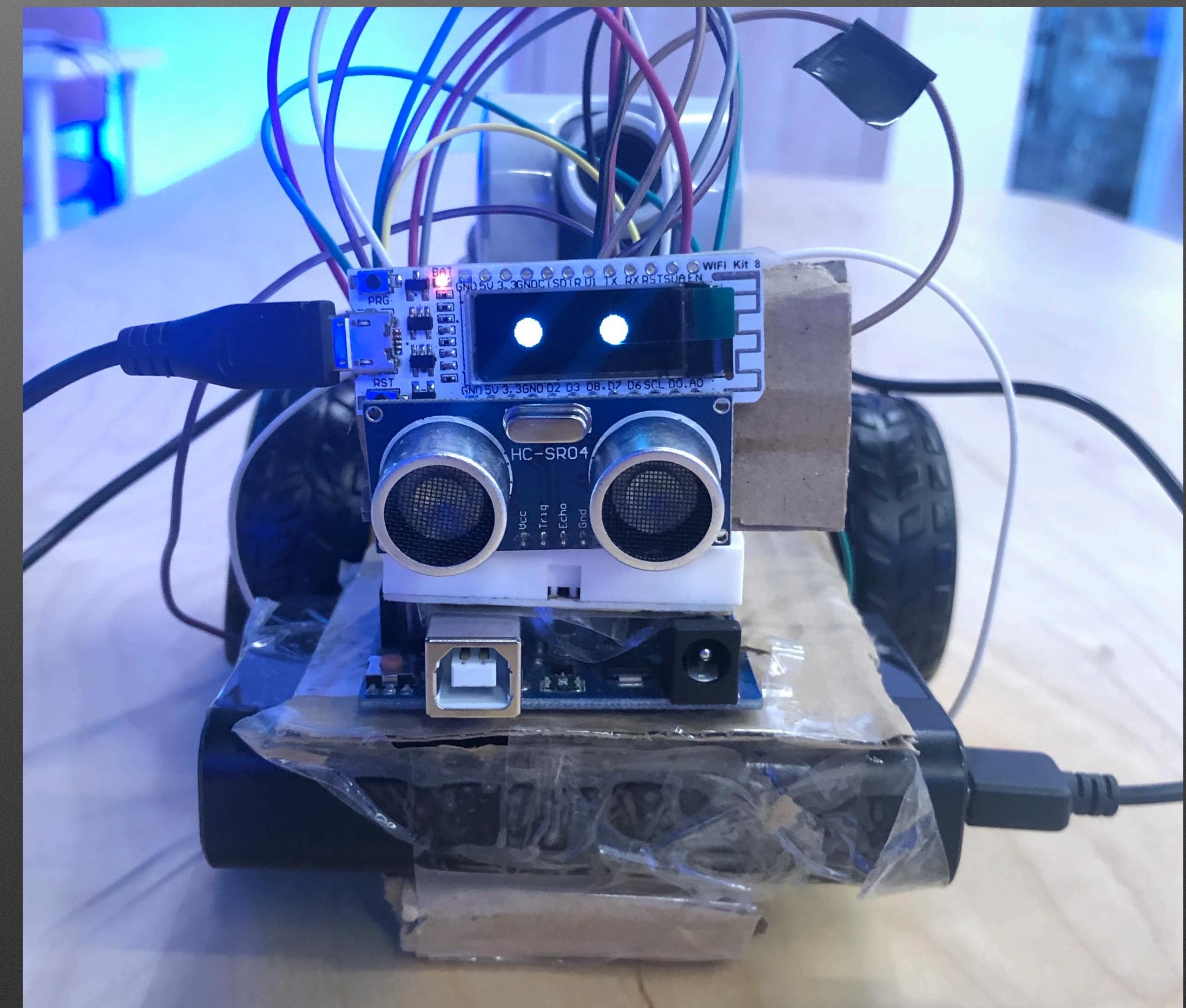
# First part - collision avoidance device

- proximity sensor with headphone guidance through an Android app
- fall detection using a 3-axis accelerometer
- Arduino and Raspberry Pi brains



# Second part - the companion

- proximity sensor
- 2-wheeled mini robot
- Arduino brains
- cute little eyes
- mock-up webcam



# Third part - environment descriptor

- \*proof of concept
- meant to be implemented in the companion robot (written in Python in order to run on the Raspberry Pi)
- names the objects that it sees
- image processing and a pre-trained neural network



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# Future development

- embed everything into one device
- implement a way to follow the person in need

**Q & A**