

Baltazar Guerra

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Meeting with group plus testing notes

- Matthew started the indoor navigation with the breadcrumb system.
- Arthur tested the accelerometer/gyroscope and is bringing the ultrasonic sensors and motors together with the Pi.
- Jonathan is finding alternatives to using YOLO V3 since it was too slow on the Pi.
- Shawn is working on the communication between the Pi and the iPhone, plus finished up the outdoor navigation.
- Overall results from testing ultrasonic sensors:
  - o Again, they work best at a distance of less than 5 ft. After 5 ft, there starts to be some variance in the reading.
  - o If the sensor detects just the side of an obstacle, it could give readings slightly off.
  - o The sensor can take many readings per second. I tested up to 5. This is great since it gives more detection while the cane is moving.
  - o Code in Arduino was very straight forward, and should be the same for the Pi.
  - o Overall, they work pretty well.
- Overall results from testing vibrating motors:
  - o The cables for the motors are REALLY thin and a bit fragile. At first, they would not hold onto the breadboard, so I tried wrapping the thin cable onto a regular sized cable (like the one we used before in other classes). After the motor had been vibrating for a while, the outside extension of the wire (that was wrapped up) got cut off.
  - o If the motor is not held down or put on a fixed place, the motor can sometimes not vibrate even if it receives voltage. Also, if it's loose, it could come out of the breadboard or Pi.
  - o Besides those down sights, it works great and is very easy to program.