

15-494 HW3

1. $R = 20.0563444$

2. Find Closest Cube

- Our Cozmo is able to calculate distance for all visible cubes. Then send message to receiver implies which cubes is the closest. The receiver would then calculate a degree that Cozmo should turn. Turn() will turn according to received data.

3. Toss

- We can throw a wad of paper to about 26 cm. The paper can hit within a 3 cm circle with high possibility, and it can always hit within 5 cm circle.
- I also attached a video call “Toss.MOV” in zip file.



4. Particle

- We set up our landmark as image shown below. We use only Aruco1 and Aruco3.
- We use ArucoCombinedSensorModel as our sensor model, since it has best result during lab.
- “Particle.MOV” shows our result.
- Our Cozmo starts from seeing only Tag1 and have particles everywhere. Ended up at seeing Tag3 with particles collapse in to a tight cluster.

