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Team D1

### **What did you personally accomplish this week on the project?**

- Debugging ultrasonic sensors
  - We can now get readings from all three sensors
- Testing the load sensor
  - The load sensor is fully functional.
  - There was an issue about it working with the ultrasonic sensors since they both use similar GPIO setup, but it is now resolved.
- Debugging communication between Arduino and Raspi
  - Changed the algorithm so that raspi expects the robot to turn some incremental amount, before re-sending the turn signal until necessary. This includes changes to the human detection algorithm to respond with “centered” as long as the human is in picture. This was done because with incremental spinning, we can’t be sure that the robot would exactly face the human/group. However, this is still fine for our purposes, because our turn increment is small enough, that the robot should still be close enough for the human/group to pick up the food.
  - Currently we are facing issues with the Arduino buffering some of the raspi commands, so it does things off-sync with the raspi sensor readings. Tested some solutions mitigate this, but we are still working on it.

### **Schedule**

For next week, we are going to work on developing methods for mitigating the buffering and off-sync communication issue between raspi and arduino, and also the final presentation.

### **What deliverables do you hope to complete in the next week?**

- More reliable communication between Arduino and Raspi
- Final Presentation