WEEK 8 MEETING MINUTES

MONDAY, 3/24/25

- Further discussed replacing the old, small 3d-printed track with a new, larger track made of wood
- Assigned Jason to design the wood frame
- Received the thermal camera and assigned JJ to complete it
- Discussed building stands for deployment, collecting tennis ball videos for simulated environment
- Discussed potential methods to test thermal camera in simulated environment
- Discussed how we could use any RGB camera to test model
- Discussed object detection and counting algorithms for ball counting scenario
    - Labeling with Roboflow
    - Retraining YOLO11 model
    - Discussed the possibility of using another clustering-based model

WEDNESDAY, 3/26/25

- Discussed configuration of the cameras, how to angle and develop simulated environments with proper mounting placements
- Discussed design of simulated environment
- Compiled supply list, discussed best materials
- Discussed different types of ML models to use, potentially using clustering methods for the thermal camera
- Discussed methods to aid the low RGB camera framerate

FRIDAY, 3/28/25

- Attached the thermal camera to the raspberry pi
- Finalized supply list for simulated environment and emailed Dr. Wang the list
- Discussed camera placement with the design
- Briefly looked into documentation regarding the thermal camera
- Further discussed optimal models to use (logistics if using clustering vs other models, Logan discussed creating a mounting class for these models to easily work with YOLO's counting method)