ENGIN492, Senior Design Weekly Meeting #1

Meeting Minutes

01/25/2021 15:30 – 16:05

CM/TM: Dr. Honggang Zhang
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- **Agenda**

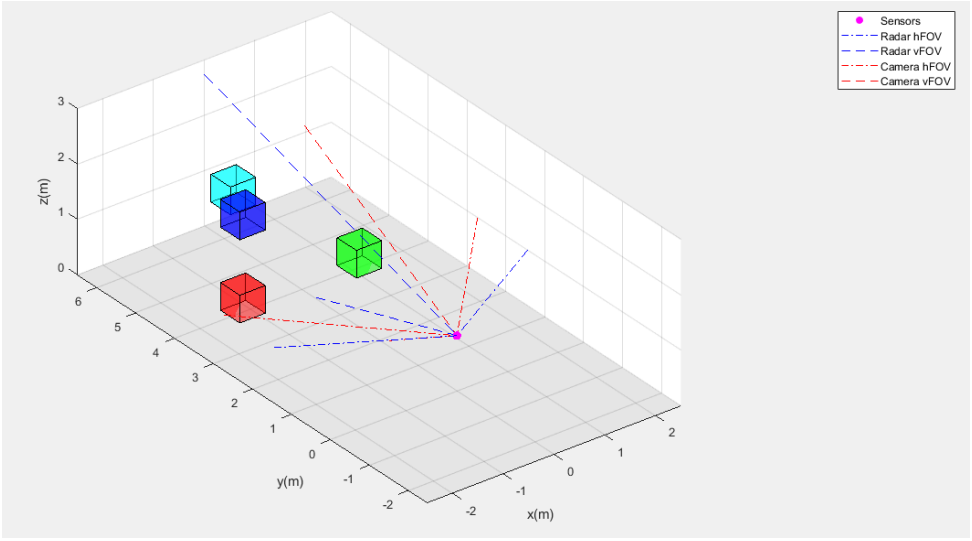
1. Experiment/simulation scene
2. Drone license
3. Neural Network

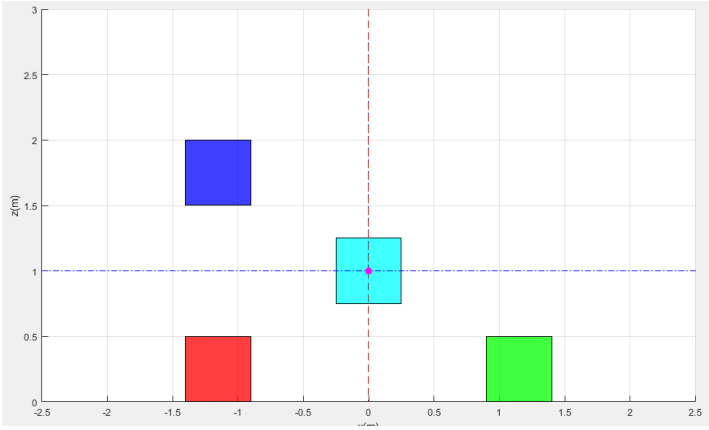
- **Notes**

1. The scene is shown below:
   a. The sensor is assumed to be placed at 1m high, at (0, 0, 1)m
   4 objects: one (cyan) sits right in front of the sensors at ~5.5m away, the other three sit at 4m away (in range), the red one and green one are symmetric about y=0, red and blue are symmetric about z=1.
   b.

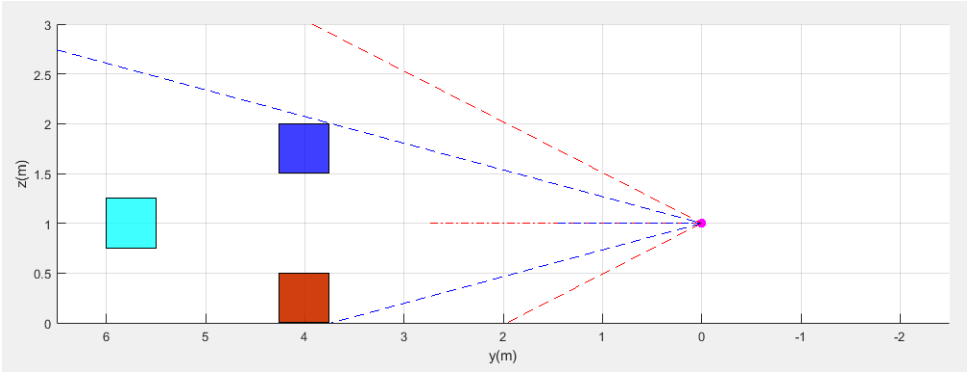
	1	2	3
1	-1.1502	3.7569	0.2500
2	1.1502	3.7569	0.2500
3	-1.1502	3.7569	0.7500

   from top to bottom: (x, y, z) of center of front surface of R/G/B boxes in meters in world coordinate. The C box sits at (0, 5.5, 1)
   c.

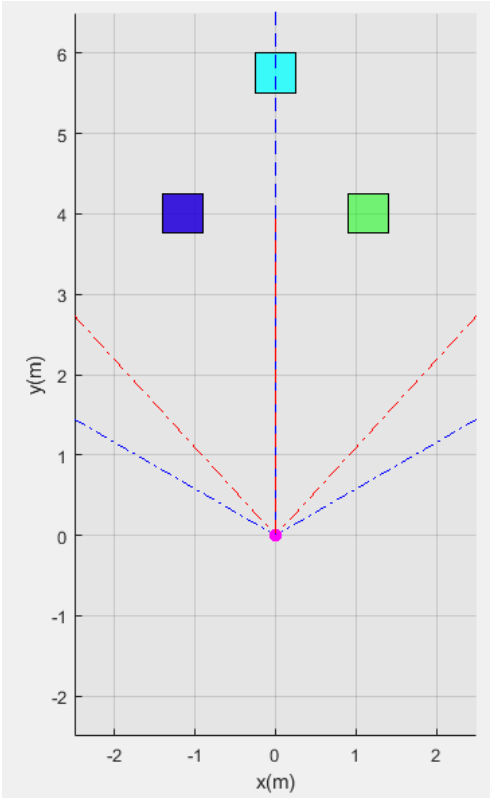


d. 

(front-view)

e. 

(side-view)

f. 

(top-view)

2. Drone license
    a. https://www.faa.gov/uas/
    b. Research on drone register, required information, limitation, pilot license, for educational users.
    c. Check details in part 107.
3. Test the NN using a pair of depth image (perspective projection) and the associated camera intensity heatmap (cartesian coordinate) as a sample point.
4. Team web page
    a. http://www.students.umb.edu/e103t24/index.html
5. PCB

- **Follow-up**