ENGIN492, Senior Design Weekly Meeting #10

Meeting Minutes

03/29/2021 15:30 – 16:25

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- **Agenda**

  1. Final review of DVP

- **Notes**

1. System architecture diagram
   a. change/unify terminologies:
      i. raw intensity maps -> 3D intensity maps (full-scale/2-snapshot)
      ii. high-resolution intensity maps -> full-scale
      iii. depth images -> 2D depth images
   b. in stage 1, specify the radar data as full-scale (64x24) and 2-snapshot (2x24), input to the heatmap generator respectively to generate full-scale and 2-snapshot intensity maps.
   c. in stage 2, put the full-scale intensity maps as ground truth in addition to the depth image, and 2-snapshot intensity maps as input to the NN. Representing 3 workflows: (1) 3D 2-snapshot intensity maps -> 3D full-scale intensity maps, (2) 3D full-scale intensity maps -> 2D depth image, (3) 3D 2-snapshot intensity maps -> 2D depth image.
   d. in stage 3, change low-resolution SAR data to 2-snapshot data, adding heatmap generator and 2-snapshot intensity maps.
2. Budge
   a. specifying the final product as the drone components.
   b. specifying the budget for both model-training equipment and UAV-sensing equipment together (called “for every above” in the budget table)
   c. specifying one-time used budget (model-training equipment)
   d. IWR6843ISK and ZED mini are common for both equipment (don’t need to show the budget separately)
3. Deliverable
   a. specify the deliverables for model-training and UAV-sensing separately

- **List of Actions**

  1. Finish the setup in drone room (foam mats and canopy frame have arrived)
  2. create a list of components on drone (what are needed to build the current drone design)

- **Preliminary Agenda for Next Meeting**
  1. List of drone components
  2. SAR raw data collection automation coding