

Exercise 11: Bubble Diagram for Cmd & Cntrl

- See the Project Specification and draw a bubble diagram for the command/control state machine as a group.
- This state machine does not need a lot of states, but the states require a number of transition arcs. Make them detailed.
- Also draw/list/describe any support hardware needed for this block. Registers, flops, counters, ...
- This is a fairly simple unit over all. You should be able to finish within the 50min period, and show your resulting diagram to Prof. Kim (not TAs).

Exercise 11: Implement Cmd & Cntrl

- Implement cmd_cntrl.v
- Implement cmd_cntrl_tb.v
 - Test how it receives cmd
 - Test how it behaves when an obstacle is detected
 - Test how it behaves when a station ID is read
 - If station ID is the destination ID?
 - If station ID is not the destination ID?

Exercise 11: Implement Motion Controller

- See the Project Specification and draw a bubble diagram for the motion control state machine as a group. Take a picture or scan and upload as motion_cntrl_bubble.jpg
- Implement motion_cntrl.v
- Implement motion_cntrl_tb.v
 - Focus on internal control signals rather than interface