## TEAM: __F1/10 Yellowtails_____

**Overview:** The main purpose of the "Technical Demos" is to very clearly communicate the extent to which the team has identified key challenges in the project, and has proven solutions to those challenges. Grading is based on how complete/accurate the list of challenges is, , and how convincingly and completely the given demos cover the given challenges.

This template is fleshed out by the team, approved by CS mentor, and brought to demo as a grading sheet.

## Risky technical challenges

Based on our requirements acquisition work and current understanding of the problem and envisioned solution, the following are the key technical challenges that we will need to overcome in implementing our solution:

**C1: Uploading a configuration file.**

- Show that the configuration gets parsed and uploaded to the GUI.

**C2: Save Profile.**

- Once the configuration has been uploaded into GUI and the user selects which options they want in the profile they can save the profile.
- This can be saved in any format.

**C3: Load Profile.**

- Loads a profile that the user wants to see in GUI.

**C4: Start Car.**

- Once a user selects all options they want, send a launch file with options to the car.

**C5: Start Sim.**

- Once a user selects all options they want, start the simulation with the options selected.

**C6: Stop Car.**

- Stop the car when the button is pushed.

**C7: Emergency Script.**

- Script on the car that checks for connection.
- Connection lost stops the car.

## Challenges covered by demos:

In this section, we outline the demonstrations we have prepared, and exactly which of the challenge(s) each one of them proves a solution to.

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**Demonstration 1: Video of Start and Stop Car working.**

Challenges addressed: C4, C6.

Flight Plan: Step by step overview of demo

1. Click start car
2. Have parameter string printed out
3. Echo all of the calls that we would for sshing into the car.
4. Show video of the car running

Evaluation:

- ✔ Convincingly demo'd each of listed challenges?
- ✔ Other evaluative comments:

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**Demonstration 2: Showing the configuration and profiles.**

Challenges addressed: C1, C2, C3

Flight Plan: Step by step overview of demo

1. Upload a config file to be displayed in the GUI
2. Select Racing Strategy
3. Select Mapping
4. Select Planning
5. Select Perception
6. Save the selected values that are selected
7. Show mouse over is dynamic
8. Load a saved Profile back into the GUI so users can use the same profile again.

Evaluation:

- ✔ Convincingly demo'd each of listed challenges?
- ✔ Other evaluative comments:

**Demonstration 3: Running the simulator**

Challenges addressed: C1, C2, C3, C5

Flight Plan: Step by step overview of demo

1. Upload a config file to be displayed in the GUI
2. Select Racing Strategy
3. Select Mapping
4. Select Planning
5. Select Perception
6. Save the selected values that the users put
7. Load profile into the GUI
8. Click start sim. Pass in the parameters to the simulation and start the simulations.

Evaluation:

- ✔ Convincingly demo'd each of listed challenges?
- ✔ Other evaluative comments:

**Other challenges recognized by not addressed by demo:**

If there were challenges you listed earlier that were *not* covered by a demo, list here. This will hopefully be a short list…but better to be clear about where you are. If you have items here, you could list (if applicable) any pending plans to reduce these risks.

# Covid-19 Update:

Due to all of the labs being closed we are no longer able to go into the lab and use the actual car. This causes us not to be able to show off the start car functionality working on the car, and both the stop car and the script that stops the car.