**Flight Profile Design Application Instructions**

Designing:

1. Steps can be added by right-clicking on the blank space below the main buttons and selecting “Add Step”.
2. The last step in the list can be removed by right-clicking in the same areas as before and clicking “Remove Step”
3. For each step, the Start Values and End Values textboxes are filled in with PWM signals in the following format: AV1,AV2,AV3,AV4.
4. If the “Sustain at End Values” check box is checked, “End Values” will be sent to the engine servos for the specified “Sustain/Ramp Time Interval”. If unchecked, the values will ramp up linearly from “Start Values” to “End Values” over the specified “Sustain/Ramp Time Interval”.

Buttons:

1. “Save as Excel File” creates a CSV file with which the user can preview the flight profile design.
2. “Submit” creates the flight profile itself which is a text file with a name such as “pwm2.txt”. The only part of this file name which should be changed is the number which specifies the profile number the user must select on the Ground Control Station.
3. “Clear All” simply clears all flight profile steps in the list.

Additional Information:

1. Each set of PWM values are created for every 100 ms.
2. The “Sustain/Ramp Time Interval” must be input in units of milliseconds.
3. After creating the flight profile, it should be uploaded to the red-colored microSD card on the craft while making sure the file name is as specified above.