

- First run the file initial.m which should contain the initial condition data that you want to apply to the initial condition of your simulation. Run the “runfirst.MDL” file by applying the same initial conditions to it. Do not forget to specify the final boundary conditions in the root\_path.m file.
- This will successfully create an array containing all the data on your initial run which would be required by the memory block and the rate transition block in the aerosonde\_controlled model. Therefore after successfully running the run\_first file run the Aerosonde controlled file following the instructions given regarding the Aerosonde model by Dr J.F. Whidborne.
- The cons\_path function file contains the constraints that are applied on the optimizer and the obs\_path file contains the cost function applied on the optimizer.
- The post\_process\_path file is used to separate the array into data columns which is used at the end of the root\_path file to manipulate the output data from the trajectory generator.
- It will contain the position as well as the controls obtained via inverse dynamics.
- The aerosonde\_controlled model contains the trajectory generator block connected to the flight controller.
- The file also contains a point mass model which contains the same trajectory generator block as the Aerosonde model.