This software simulates the full flight trajectory of a liquid-propellant rocket. It has been developed for UBC’s Rocket Design team.

The code is written in Python. If using MS Visual Studio, open the solution (.sln) file and run the module title “Main\_script.py”.

Various standard Python libraries must be installed. These include:

* numpy
* pandas (with xlrd)
* scipy
* matplotlib

The simulator assumed that a rocket with a launch angle of zero is aligned with the horizontal x-axis. Therefore, to launch the rocket at an angle of 80 deg above the horizontal, a launch angle of -80 deg must be specified in the “RocketProperties” class. The negative sign makes sense given the right-hand rule, with the z-axis pointing toward the sky.