

## Orbital Simulator Readme

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This program simulators basic orbits around the Earth. Perigee, Apogee, and Inclination can be modified to alter the orbit. After running the program a gif of the orbit is created in the same folder as the program.

Included are 2 sample gifs. The first shows the orbit of the International Space Station and the second is a random orbit that also demonstrates how the camera changes are recorded within the saved gif.

## Running the Program

All the m files and the mat file from OrbitalSimulator.zip in the same folder. To run the program, run OrbitalSimulator.m.

## Simulating Orbits

Orbital parameters can be changed by typing the new value into the corresponding box. Values not in the correct range or non number entries will be denied and the value reset. Clicking the model orbit button will start the simulation. Camera controls are in the lower right. Clicking the center R button resets the camera to the default position.

## Closing the Program

Do not close the program while an orbit is being simulated.