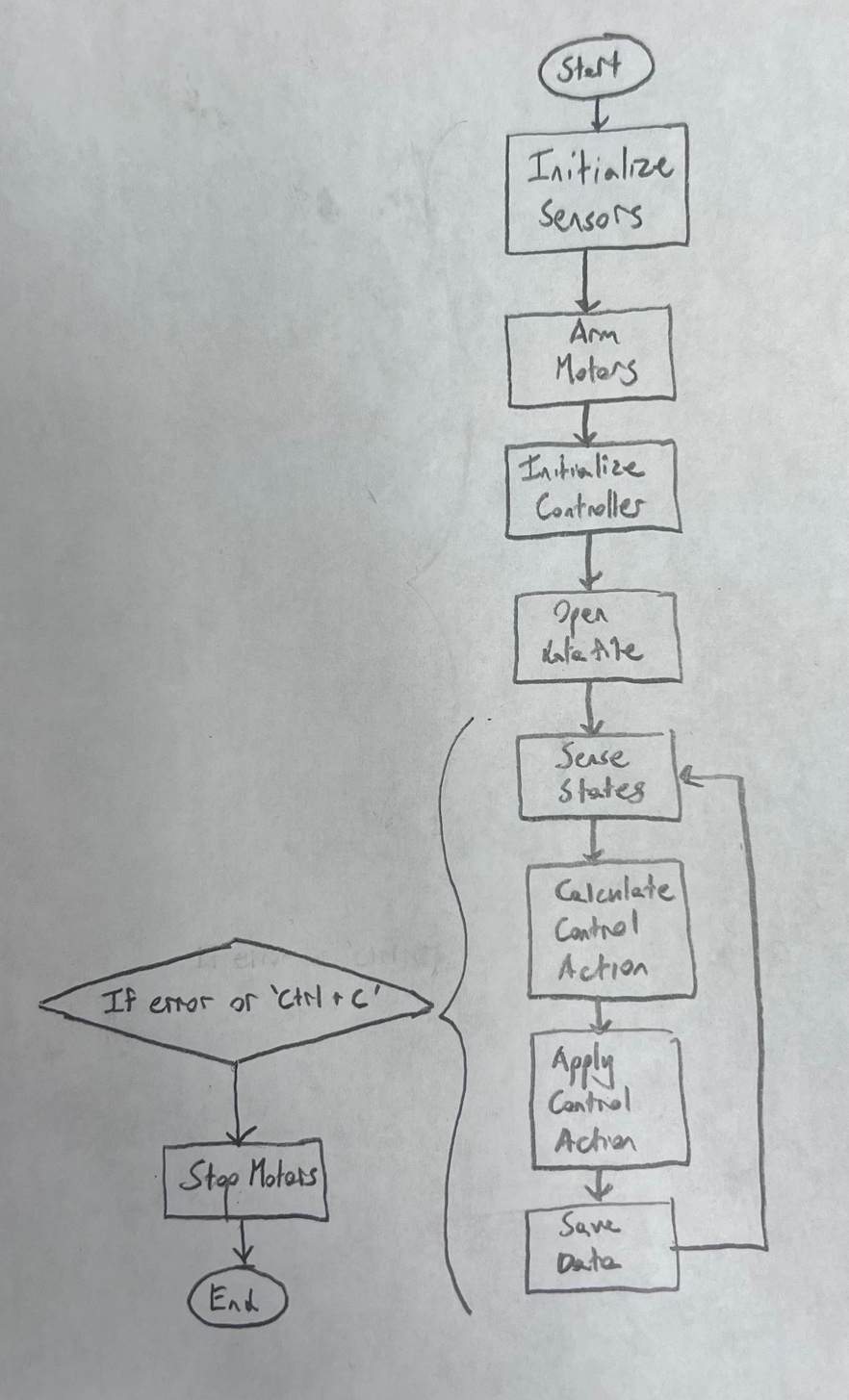
Code Documentation

Main.py runs the control loop to make the drone hover in place. The outline is given below.



The method for calculating the control action is currently the PD controller described in Control Documentation. Currently (October 23, 2024), it works on the test bench (see Test Bench Documentation). Main.py relies on multiple public libraries as well as custom functions that are stored in the ‘functions’ directory.

While Main.py runs, it writes all of the relevant state and control data to a file called ‘data.csv’. The matlab script PlotDroneData.m visualizes the flight data and saves it to the specified file in the ‘ExperimentPlots’ directory.

It is often necessary to run a simplified code to test a new feature. Several old examples of these scripts are saved in the directory ‘TestScripts’.