Reference:

1. <https://www.ardusub.com/developers/developers.html> (Instructions)
2. <http://ardupilot.org/dev/docs/building-px4-with-make.html> (Instructions)
3. <https://git-scm.com/downloads> (Download for Git Bash)
4. <https://desktop.github.com/> (Download for GitHub Desktop)
5. <http://qgroundcontrol.com/> (Download for QGroundControl)
6. <https://github.com/ArduPilot/ardupilot> (GitHub repository for ardupilot program)

\*Need to install **GitHub Desktop**, **Git Bash**, **QGroundControl** and **pixhawk\_toolchain.eve (included in this drive folder)** before proceeding.

1. Go to GitHub repo site: <https://github.com/ArduPilot/ardupilot>. Press the green “Clone or download button.” Select “Open in Desktop” option in the drop down menu, which prompts you to open GitHub Desktop\*. The repository should be downloaded using the GitHub Desktop program. Select a location to save the repository and proceed to clone.
2. Open Git Bash, and go to the directory where you cloned the ArduPilot repository. Run the commands:

git config **--global** core**.**autocrlf false and git submodule update **--**init **--**recursive

1. Make necessary changes to the files within the ardupilot folder. Commit the changes using Git Bash.
2. Open “PX4 Console” (which you got from pixhawk\_toolchain). Navigate to the ardupilot directory using “cd \*\*directory to ardupilot folder\*\*.” Go into the ArduSub folder using command “cd ArduSub.” Then run the command: make px4-v2 to compile changes.
3. Once make px4-v2 is complete, connect the Pixhawk to your computer using the USB cable and run the command: make px4-v2-upload to upload the code to the Pixhawk.
4. Open QGroundControl and do the standard firmware upgrade for ArduSub. Check if custom configurations are saved in “Parameters.”

* \* GitHub Desktop might not be required. As long as the ardupilot repository is cloned in your computer and you can find its directory, it should be fine. I only used GitHub Desktop because the guide site told me to.