



## INTRODUCING STUDENTS TO MICROELECTRONICS AND THE PHYSICS OF ROCKETRY

To enable rocket telemetry on launch day, you must have Mission Planner installed on your laptop before you arrive. The following pages will walk you through Mission Planner installation.

**For Windows based computers, PC's**, you will need the following software installed...

- OpenRocket, <https://openrocket.info/>, this allows you to model your rocket and run rocket flight simulations.
- Mission Planner <https://ardupilot.org/planner/docs/mission-planner-installation.html>; this allows you to monitor and record data from our Avionics Bay.

**For INTEL based Apple Computers** you will need the following software installed...

- OpenRocket, <https://openrocket.info/>, this allows you to model your rocket and run rocket flight simulations.
- Parallels <https://www.parallels.com/> ; this software allows you to run Windows 10/11 on a Mac.

Or

Apple's Boot Camp with Windows

Installation <https://support.apple.com/guide/bootcamp-assistant/welcome/mac>

- Microsoft Windows <https://www.microsoft.com/en-us/windows/get-windows-11> ; this allows you to run Mission Planner
- Mission Planner <https://ardupilot.org/planner/docs/mission-planner-installation.html> ; this allows you to monitor and record data from our Avionics Bay.

**For M1 based Apple Computers** you will need the following software installed...

- OpenRocket, <https://openrocket.info/>, this allows you to model your rocket and run rocket flight simulations.
- Parallels <https://www.parallels.com/> ; this software allows you to run Windows 10/11 on a Mac.

- Microsoft Windows <https://www.microsoft.com/en-us/windows/get-windows-11> ; this allows you to run Mission Planner
- Mission Planner <https://ardupilot.org/planner/docs/mission-planner-installation.html>; this allows you to monitor and record data from our Avionics Bay.
- FTDI USB VCP Driver <https://ftdichip.com/drivers/vcp-drivers/>; this allows you to setup our telemetry radio used to communicate to the Avionics Bay
- FTDI Installation Instructions [https://ftdichip.com/wp-content/uploads/2022/05/AN\\_396-FTDI-Drivers-Installation-Guide-for-Windows-10\\_11.pdf](https://ftdichip.com/wp-content/uploads/2022/05/AN_396-FTDI-Drivers-Installation-Guide-for-Windows-10_11.pdf)

Installation instructions for Mission Planner are on the following pages.

# Ardupilot and Mission Planner Configuration



- Avionics Kits
- Telemetry Radio Kit
- Power Supply
- Internet Connection

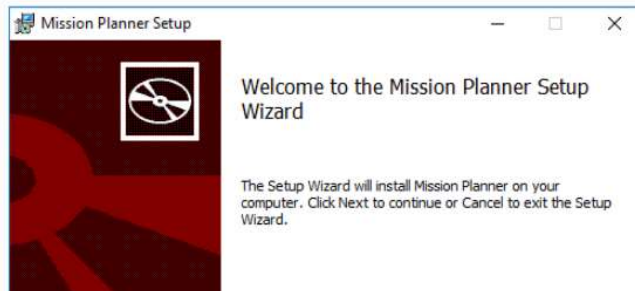
## Step 0 Install Mission Planner

- 0.1** Mission Planner is our Ground Control Station which relays telemetry information to the user while the vehicle is in operation
- 0.2** Using the link provided below, go to the Ardupilot website and click the link <https://ardupilot.org/planner/docs/mission-planner-installation.html> this will begin downloading the installer to your computer.

### Installing Mission Planner (Windows)

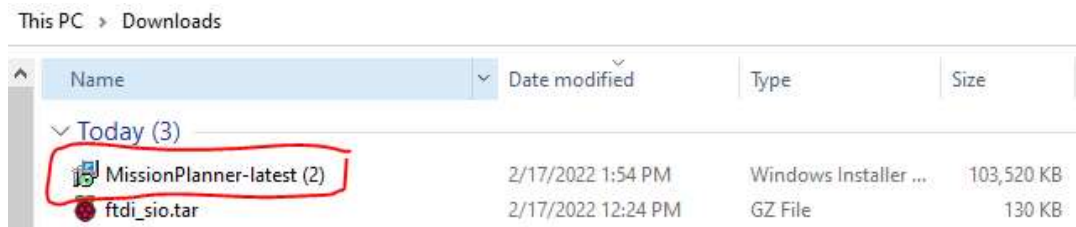
The below instructions show how to install *Mission Planner* on Windows. These instructions will be suitable for most users. For advanced users and non-standard installations, instructions are found [here](#):. A useful video guide for advanced installation of *Mission Planner* is located [here](#).

- Download the [latest Mission Planner installer from here](#)
- Double click on the downloaded .msi file to run the installer

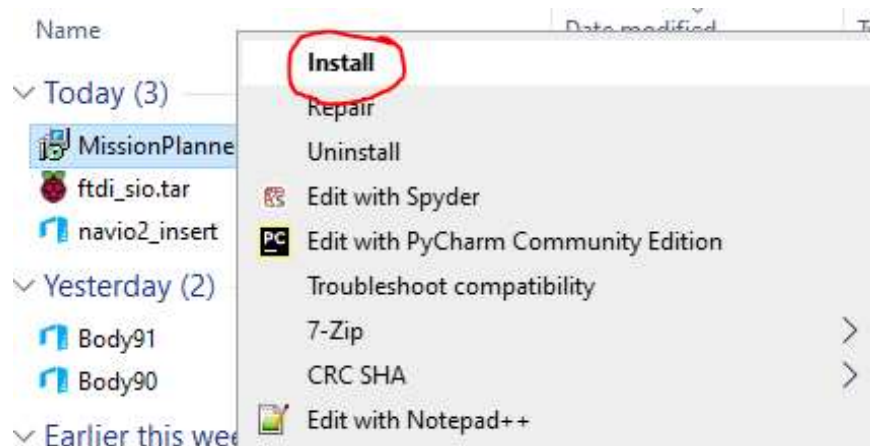


## Step 0 Install Mission Planner

- 0.3** After downloading the installer, locate the file. This will likely be in your downloads folder or you can open it from your internet browser.



- 0.4** Open Installer by right clicking and selecting the “Open” or “Install” Option



## Step 0 Install Mission Planner

**0.5** This will create a new program that will appear, follow these instructions

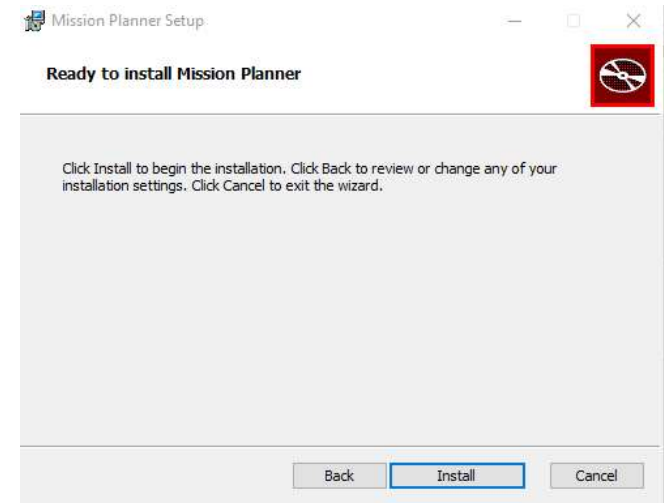
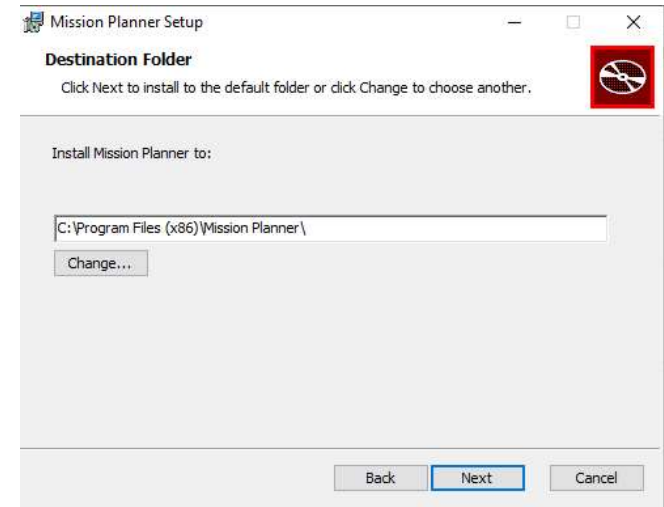
**0.6** Press Next, then read the terms of agreement, agree to it, then select next



## Step 0 Install Mission Planner

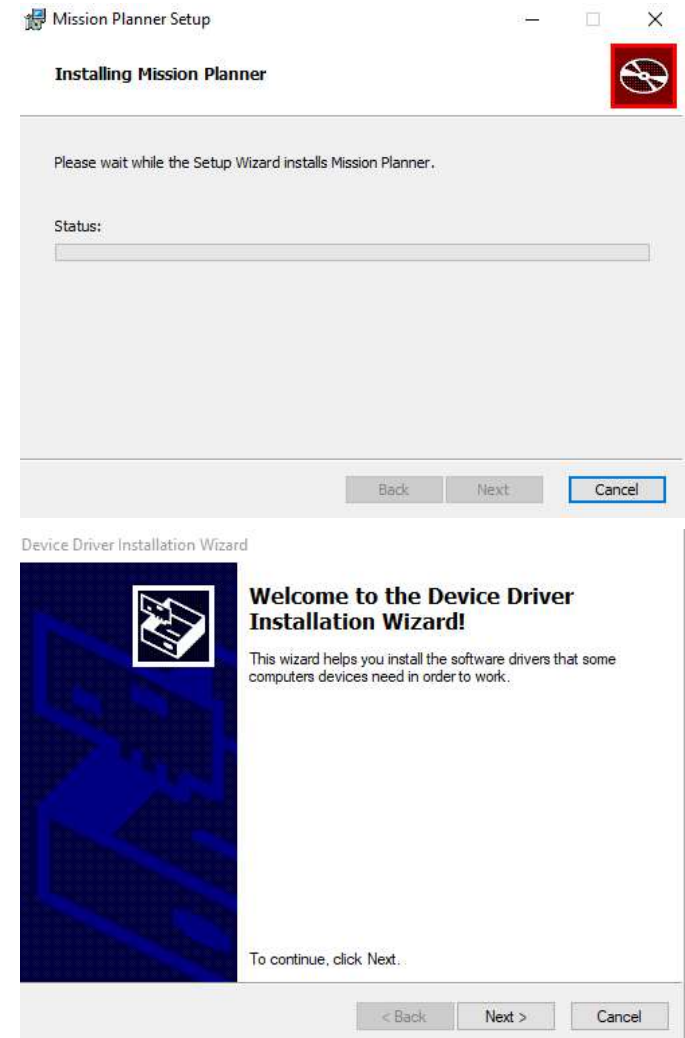
**0.7** Select where you want to install Mission Planner on your computer or leave it at the default location selected. Then press “Next”

**0.8** Confirm starting the installation by pressing “Install”



## Step 0 Install Mission Planner

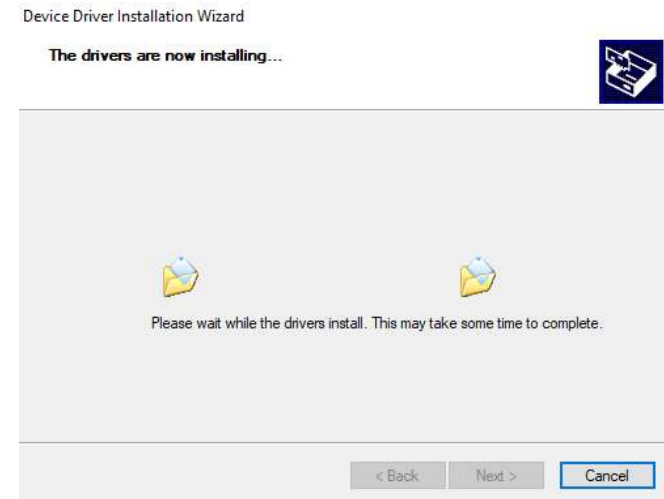
- 0.9** This will begin an installation that will finish when the status bar is filled. You might have another bar pop up asking for permission to install, allow the program permission for the installation to continue.
- 0.10** During the installation, some extra command consoles will open and close. This is normal. Additionally, you will get an installer for required drivers. These are required for interfacing with some telemetry components.





## Step 0 Install Mission Planner

- 0.11** This will begin additional installations. You will note that the Mission Planner installation will not finish until you install these Device Drivers.
- 0.12** Once it is finished you will see the following screen. Press “finish” to close the document and the Mission Planner installation will resume progress.



## Step 0 Install Mission Planner

- 0.13** Once Mission Planner is finished you can click “finish” and have Mission Planner open after closing the setup wizard, or you can manually open it.

