# [Hack your Mavic 2 Pro to Acquire Attitude (ATTI) Mode](https://dronedj.com/2019/05/25/hack-your-mavic-2-pro-to-acquire-attitude-mode/)

Learn how to get the most from your [Mavic 2 Pro](https://dronedj.com/2018/11/25/mavic-2-pro-vs-phantom-4-pro/) when you hack the bird to acquire attitude flight (ATTI) mode for buttery smooth flight movements! Many professional drone pilots love to use attitude mode on their DJI Phantoms, Inspires and Matrices!  Attitude mode turns off all GPS positioning control, yet maintains altitude when flying around. This particular flight mode has many benefits to pilots, seen and unseen. Videographers and cinematographers alike love attitude mode for the ability to fly smoothly without violent interruptions from the flight controller.

Novice pilots showcase this disastrous lack of pilot understanding when they’re filming something very smoothly and then all of a sudden, the drone abruptly stops moving. With GPS (Position) mode, when a pilot stops stick input when flying, the drone comes to a stop.  This feature is called active braking, which can be smoothed out but rarely offers full control.

Attitude mode on the other hand allows the drone to be filming a subject on the move, and when the pilot stops stick input, the drone continues to “float,” in the direction it was already moving.  The only force acting to move the drone in this mode would be either the wind or pilot input.  This means you can be filming a scene, let off the sticks and continue to film for 10 seconds just to have added space in the clip.  How many times has a director told you, just keep recording… Well, Attitude mode makes those recordings smooth.

Attitude mode could be one of the best “safety” features on a drone.  You’re probably scratching your head and thinking I’m crazy. Well, many professional manned pilots and balloon pilots alike are familiar with the Ryan Carrolton Effect which essentially dictates that there are various wind speeds at varying altitudes.  While winds may be a calm 10 mph on the ground, they could be screaming at 60mph at 300 feet, where you need to map. With attitude mode, we can fly to various altitudes, hover, and then measure the true wind speed from the drone’s actual speed. The drone will begin to move with the wind, slowly accelerating with the wind, then stop accelerating and maintain the wind speed at the altitude.

Many drone pilots may not even know they had a basic anemometer in their drone bag. Not all pilots should try this, obviously, if you have a very windy day, some pilots may have difficulty controlling the drone against the wind.

Attitude mode is also the ultimate way to stop a fly away or a 3rd party application gone haywire.  If your drone ever begins to fly a route without your input, stick the drone in attitude mode…you now have full control but no GPS input. You’ll be able to safely bring the drone home.

### So why doesn’t the Mavic 2 Pro have attitude mode?

The original Mavic Pro did not have attitude mode that the other DJI drones had.  It makes sense that the Chinese instead choose to use a “tripod” mode on the new M2P because they believed it would be easier for most pilots to use.  It made sense to provide features for the lowest common denominator, yet we can’t forget the skilled professionals as well. So we produced a video showcasing how to hack the (old) [Mavic Pro](https://www.youtube.com/watch?v=26FsemqIhXU) for add-in attitude mode.

Here are the step-by-step instructions for how to hack the new Mavic 2 Pro.

### What will you need to Hack your Mavic 2 Pro?

1. [DJI Assistant 2 Version 1.1.2](https://www.youtube.com/redirect?v=rRE9_ydEWBY&redir_token=KZ2I2MoHlTSmf1Me-_NiEQPqcCx8MTU1ODg4NDE0NEAxNTU4Nzk3NzQ0&q=https%3A%2F%2Fwww.drones4.life%2Fdji-assistant-2-download%2F&event=video_description) installed (an archived Windows version is located here: <https://drive.google.com/file/d/1OLwfPUAnLx5kwKNpkmMHjwb41dKWcBtw/view>)
2. [Mavic 2 Pro](https://click.dji.com/AEyRsbu721p-ASY8nXcvrg?pm=link) or [Mavic 2 Zoom](https://click.dji.com/AEyRsbu721p-ASY8nXcvrg?pm=link) (Mavic 2 Enterprise is fully locked up)
3. [USB C cable](https://amzn.to/2Wqjt24)
4. Computer (Mac or Windows) [Mac](https://amzn.to/2HDe9QL) is easier.

Now watch the video: <https://youtu.be/rRE9_ydEWBY>

The instructions in the video above cover how to complete the task on an Apple Mac. If you are wanting to complete the task on Windows, follow these instructions:

### Installing DJI Assistant 2 Version 1.1.2 on Windows 8 or 10

**NOTE:** Installing DJI Assistant Version 1.1.2 on Windows 8 or 10 requires you to boot into “safe mode”. This is because the 2 drivers needed are not, or not properly signed, and Windows 8 and 10 won’t allow installation when running in “normal” mode

To get into Windows safe mode and disable the driver signing requirement you need to do the following:

1. Right-click the ***Start*** menu and select ***Settings***.
2. Next click ***Update & Security***.
3. Then click on ***Recovery***.
4. Click the ***Restart Now*** button under *Advanced Startup*.
5. Then click ***Troubleshoot***.
6. Next select ***Advanced*** options.
7. Select the text ***See more recovery options***.
8. After that select ***Start-up* *Settings***.
9. Now click on ***Restart***.
10. In the resultant Startup Settings screen press **7** or **F7** to disable driver signature enforcement.

Here is a video that shows how to do that: <https://www.youtube.com/watch?v=yrW7YesPMKY>

Install the DJI Assistant v1.1.2 as usual, the driver installation will display some pop-ups and will install, after which you are able to use DJI Assistant. Once the software is installed you can use it like any other program, “safe mode” is only needed during the installation phase, so after installation restart the PC to run it in back “normal” mode again. The unsigned drivers will now work in normal mode.

For those on Windows, to get into the debug mode:

1. Open the file location of DJI Assistant 2
2. Go into the *AppFiles* folder
3. Locate **main.js**
4. Open it with Notepad++
5. Delete the “**//**” in front of line 113. It should now read as follows: **mainWindow.webContents.openDevTools()**
6. Save the file (this may need administrator permissions to save)
7. Open DJI Assistant 2 and because of the above debug will already be on (you won’t need to press the iOS Command+Option+I combination as mentioned in the video)
8. In the right hand debug Window, click on the ***Resources*** tab (you might need to press >> to scroll to the right to find it)
9. Expand ***Local Storage*** in the left pane
10. Click on ***file://***
11. Find the ***debug*** Key, double click on the “**0**” Value next to it and change it to “**1**”
12. Now change the ***debug\_enabled*** Key’s Value from ***false*** to ***true***
13. Click **X** on the top of the pane to close debug window
14. Connect your drone via the USB cable, power it up, and click on the Mavic icon when it appears in the pane
15. From the resultant list of options in the left pane, scroll down and select ***Parameters***
16. Type “**mode**” into the *Filter* field. 
17. The resultant list of *fswitch\_selection……mode[x]* parameters are for the 3 controller switch positions; Mode[**0**] = **Tripod mode (12**), Mode[**1**] = **Sport mode (8)**, Mode[**2**] = **Position mode (7)**.
18. Double click on to reassign any one of these position settings with a new value of “**3**” to set that position to **Atti mode**. Note that you can always press the *Reset* button to restore back to factory settings, or *Read* to re-read the current contents from the drone if you accidently change the wrong parameter.
19. Press the ***Enter*** key
20. Click on the top left DJI icon to Exit out and save the settings.

Hope this little “hack” helps you get more out of your drone and aids in acquiring smoother aerials from your drone.

-Paul Aitken