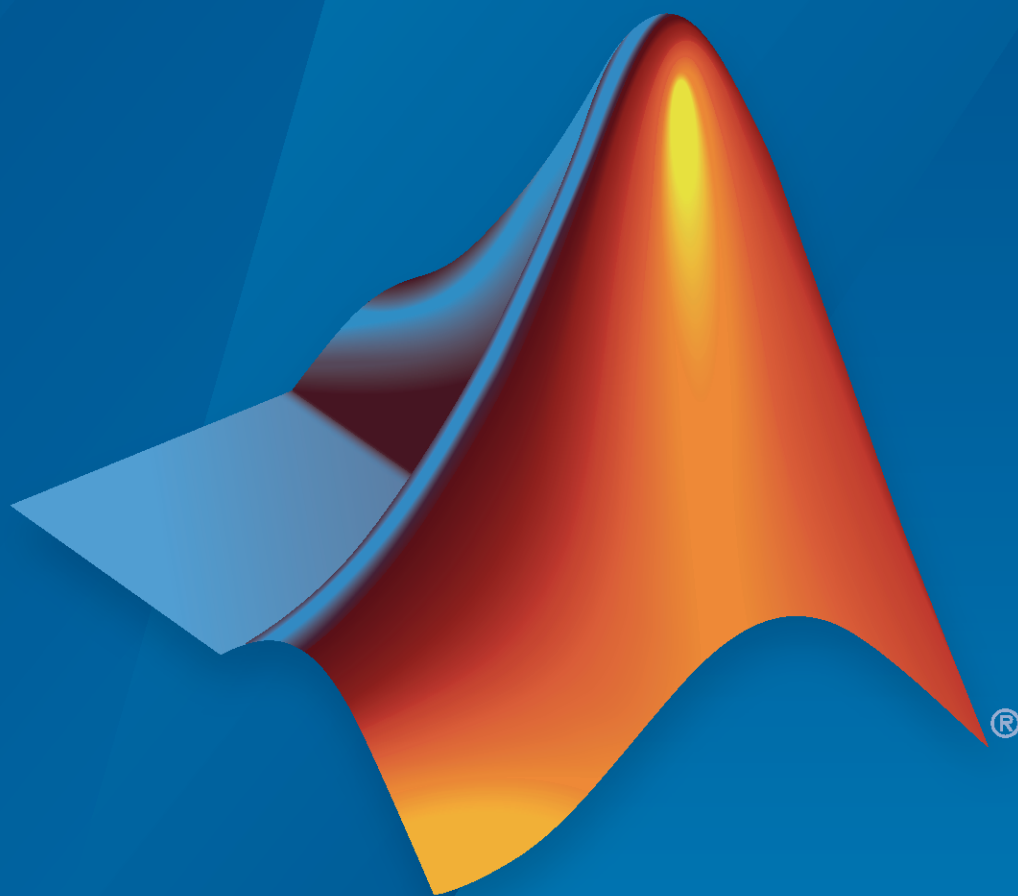


MATLAB® Support Package for Parrot® Drones

User's Guide



MATLAB®

R2021b



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MATLAB® Support Package for Parrot® Drones User's Guide

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April 2019	Online only	Revised for Version 19.1.1 (R2019a)
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Setup and Configuration

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Install Support for Parrot Drone

In this section...

“Install, Update, or Uninstall Support Package” on page 1-2

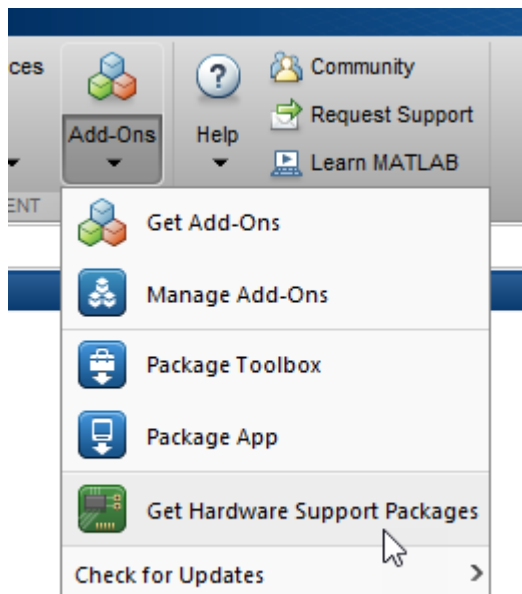
“Hardware Setup” on page 1-3

Add support for Parrot drones to the MATLAB product by installing the MATLAB Support Package for Parrot Drones.

Install, Update, or Uninstall Support Package

Install Support Package

- 1 On the MATLAB **Home** tab, in the **Environment** section, select **Add-Ons > Get Hardware Support Packages**.



- 2 In the Add-On Explorer window, click the support package and then click **Install**.

Update Support Package

On the MATLAB **Home** tab, in the **Environment** section, select **Help > Check for Updates**.

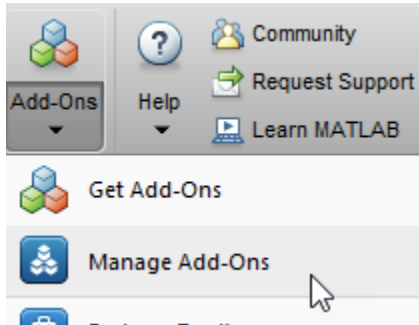
Uninstall Support Package


- 1 On the MATLAB **Home** tab, in the **Environment** section, click **Add-Ons > Manage Add-Ons**.
- 2 In the **Add-On Manager** window, find and click the support package, and then click **Uninstall**.

Hardware Setup

Hardware boards and devices supported by MathWorks® require additional configuration and setup steps to connect to MATLAB and Simulink®. Each support package provides a hardware setup process that guides you through registering, configuring, and connecting to your hardware board.

If the support package is already installed, you can start the hardware setup by opening the Add-On Manager.



In the Add-On Manager, start the hardware setup process by clicking the **Setup** button, .

After starting, the Hardware Setup window provides instructions for configuring the support package to work with your hardware.

Follow the instructions on each page of the Hardware Setup window. When the hardware setup process completes, you can open the examples to get familiar with the product and its features.

Connect to Parrot Drone over WiFi

Introduction

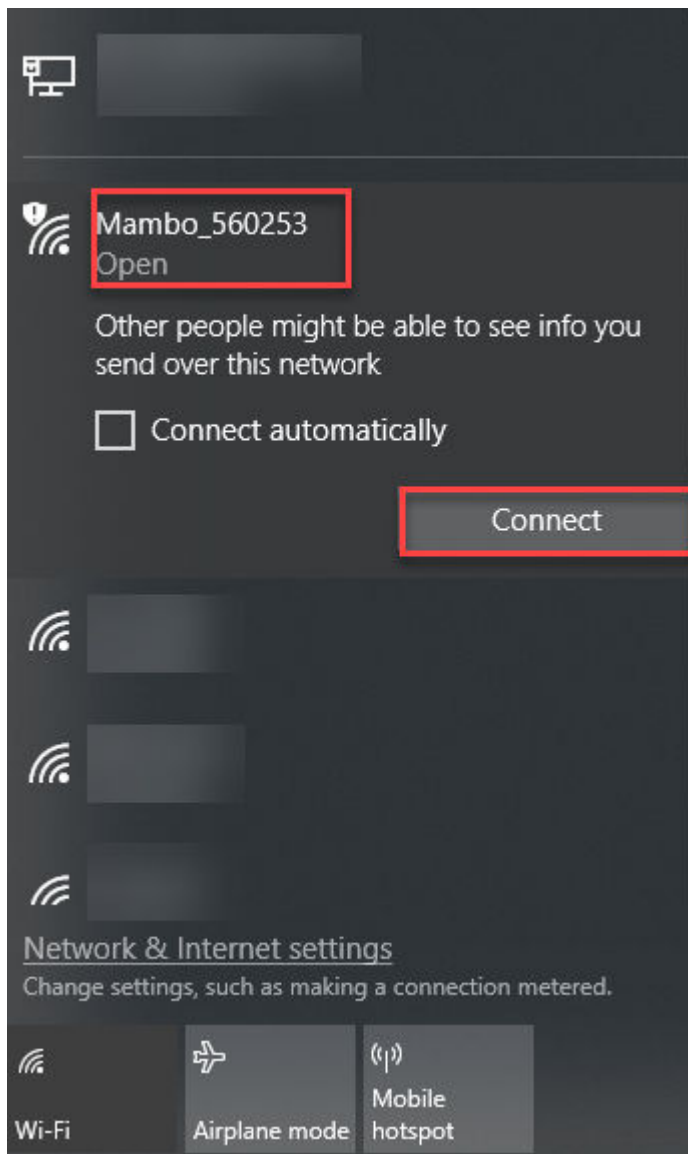
To connect your computer to your Parrot Drone over WiFi, see:

- Parrot Mambo Drone on page 1-4
- Parrot Bebop2 Drone on page 1-5

Connect to Parrot Mambo Drone Over WiFi

To connect your computer to the Parrot Mambo drone WiFi, follow these instructions:

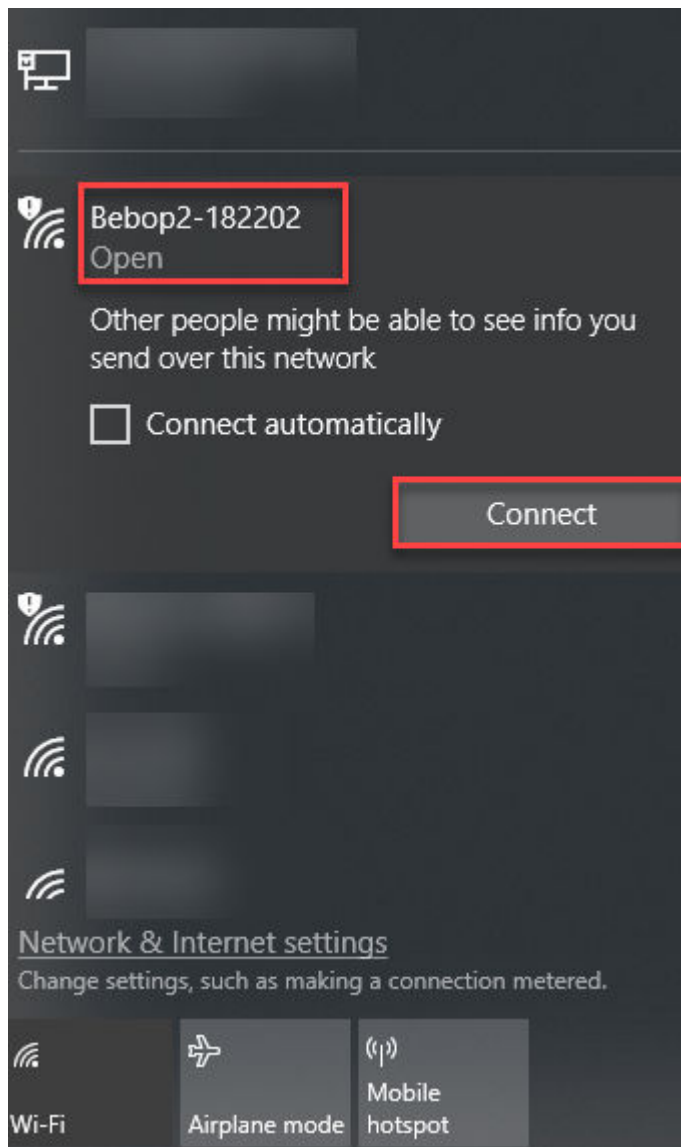
- 1 Insert the battery and power on the Parrot Mambo FPV drone.
- 2 Wait for the LEDs in the camera to stabilize.
- 3 Connect to the drone's WiFi network as shown.



Connect to Parrot Bebop 2 Drone Over WiFi

To connect your computer to the Parrot Bebop 2 drone WiFi, follow these instructions:

- 1 Insert the battery and power on the Parrot Bebop 2 drone.
- 2 Connect to the drone's WiFi network as shown.



Restore Original Firmware

Description

Restore the original firmware for your Parrot drone

Action

Drone	Action
Parrot Mambo	<ul style="list-style-type: none">• To download the original firmware click here.• To update via USB, click here and follow the onscreen instructions.
Parrot Bebop2	<ul style="list-style-type: none">• To download the original firmware, click here.• To update via USB, click here and follow the onscreen instructions.

Factory Reset of Parrot Drone

Description

A factory reset of Parrot drone clears all the data and restores the drone back to its original state. The factory reset may be required if you encounter the following problems:

- The connection to Parrot drone over WiFi is failing, even though the connection was successful earlier.
- Parrot drone is powering off immediately after a reboot.

Action for Parrot Mambo Drone

To perform a factory reset, follow these steps

- 1 Switch on the Parrot drone and wait for the LEDs to turn green.
- 2 Press the Power button again and keep it pressed for about 30 seconds. During this period:
 - a The two drone LEDs turn red alternatively and start blinking.
 - b The frequency of blinking increases indicating the last stage of the reset process.
 - c Keep the Power button pressed until the LEDs turn green.

After performing the factory reset of Parrot Mambo drone, connect the computer to the drone's WiFi (see "Setup and Configuration").

Action for Parrot Bebop 2 Drone

To perform a factory reset follow these steps

- 1 Switch on the Bebop 2 drone and wait for the LED at the back to stop flashing.
- 2 Press the Power button again and keep it pressed for about 10 seconds. After this, the Bebop 2 LEDs will flash, and the drone will restart. This will take several minutes.

After performing the factory reset of Parrot Bebop 2 drone, connect the computer to the drone's WiFi (see "Setup and Configuration").

See Also

More About

- "Troubleshooting Connection Issues Post Flight Crash" on page 2-2
- "Troubleshooting Low Battery Warning" on page 2-3

Parrot Drone Navigation

- “Troubleshooting Connection Issues Post Flight Crash” on page 2-2
- “Troubleshooting Low Battery Warning” on page 2-3

Troubleshooting Connection Issues Post Flight Crash

Description

An advanced maneuver like flip can lead to a flight crash if the drone battery is low or if the ground clearance is not enough for completing the flip. In such scenarios, the parrot object properties may not be updated and can interfere with other drone operations.

Action

Clear any existing parrot object if a flight crash has occurred.

See Also

More About

- “Troubleshooting Low Battery Warning” on page 2-3

Troubleshooting Low Battery Warning

Description

The low-battery warning indicates that the drone battery must be replaced. The drone performance may be reduced under low-battery conditions and it is not advised to perform advanced maneuvers like flips in such conditions.

The drone will force land and ignore further takeoff commands if the flight is continued post the warning message.

Action

- 1 Land the drone
- 2 Turn off the drone
- 3 Replace drone batteries
- 4 Connect computer to drone's WiFi network
- 5 Clear the existing parrot object and create a new one

See Also

More About

- "Troubleshooting Connection Issues Post Flight Crash" on page 2-2

