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EVO Grip (MK1)

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User Guide





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EVO Grip (MK1)

Introduction

Constructed from high-grade plastic and aluminum, the EVO Grip (MK1) controller (Figure 1) offers enhanced reliability, capable of withstanding the demands of even the most dedicated virtual pilots. Supported by a 32-bit STM32 controller, you'll enjoy superior aircraft control precision and minimal response delays, as low as 3 ms.

The buttons have undergone durability testing, enduring up to 1 million clicks. The controller features three ALPS eight-position hat switches, each individually configurable through software. The precise scroll encoder operates without backlash, and the ALPS mini sticks with metal caps offer accuracy down to 0.05 degrees.

For added control, a metal twist function with a locking feature is included. The fire control module, crafted from metal, includes a milled trigger and cock module with non-contact external trigger-to-cock interaction.

Enhance visibility and aesthetics with the RGB backlight and enjoy the smooth and reliable performance of the fully metal analog brake lever, mounted on a metal bushing. In this user guide, we'll delve deeper into each feature, providing step-by-step instructions to optimize your virtual flying experience.

All buttons are configurable through our proprietary software.



Figure 1. Perspective views of FC Technologies EVO Grip (MK1).



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EVO Grip (MK1)

EVO Grip (MK1) - Features





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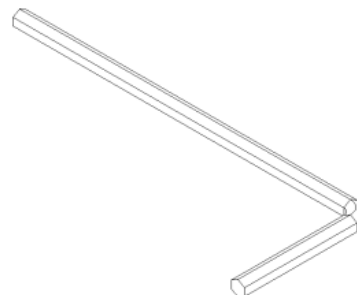
EVO Grip (MK1)

Inside the Box

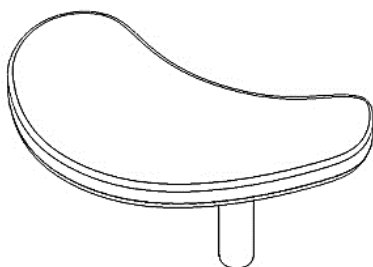
1x EVO Grip (MK1)



1x Hex key



1x *palm support



1x palm support

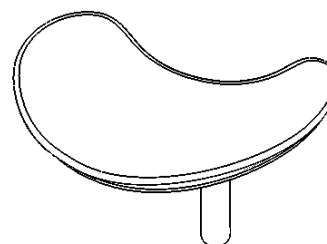


Figure 2. Contents of the EVO Grip (MK1) product packaging. *Factory installed.

EVO Grip – Technical Overview

The EVO GRIP (MK1) device is designed to be connected to the EVO BASE (MK1) for use with a PC in various computer games. The STM32F411 microcontroller receives information about the state of buttons, an encoder, and 8-position hats Alps using PCF8575 microchips through the I2C interface. It determines the position of the thumb-stick using an ADC (analog-to-digital converter) and detects the rotation angles of the magnets (twist, brake, and trigger) using TLE5012 microchips through the SPI interface. Then, the microcontroller generates a data packet and, upon request from the EVO BASE (MK1), sends this data packet through the SPI interface.

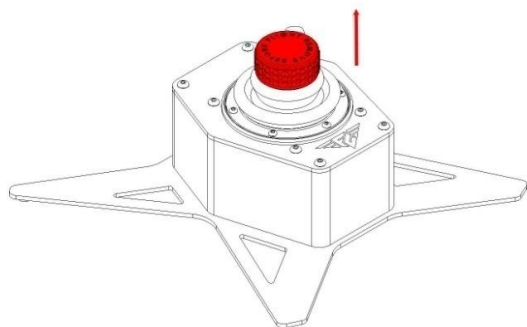


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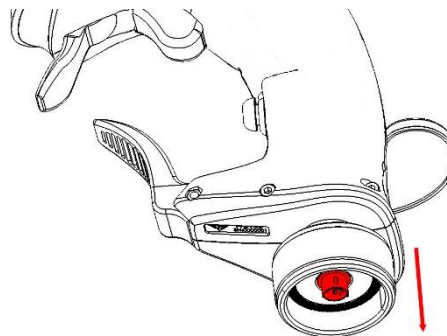
EVO Grip (MK1)

EVO Grip – Mounting to the base

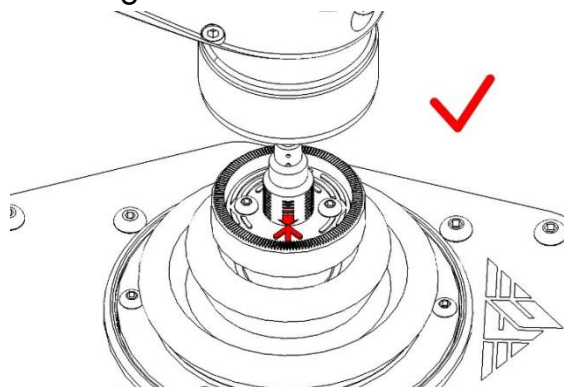
1. Release the base from the cover.



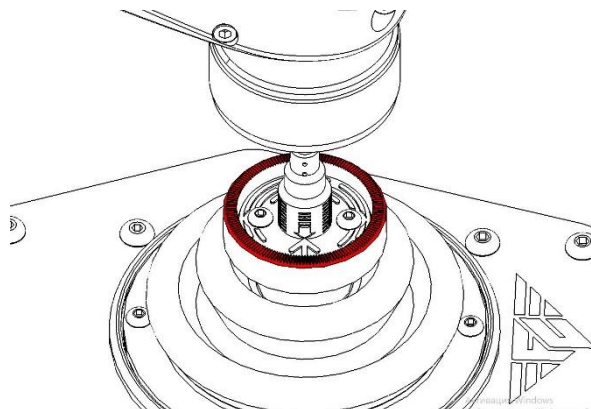
2. Pullout the connection cable from the bottom of the handle.



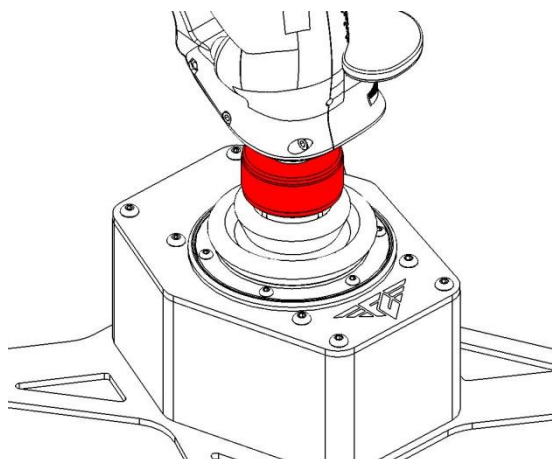
3. Connect the cable connecting the grip and the base. Pay attention to the positioning arrows!



4. Make sure the slots on the base and joystick match.



5. Adjust the position of the joystick and tighten the joystick nut on the base stem.



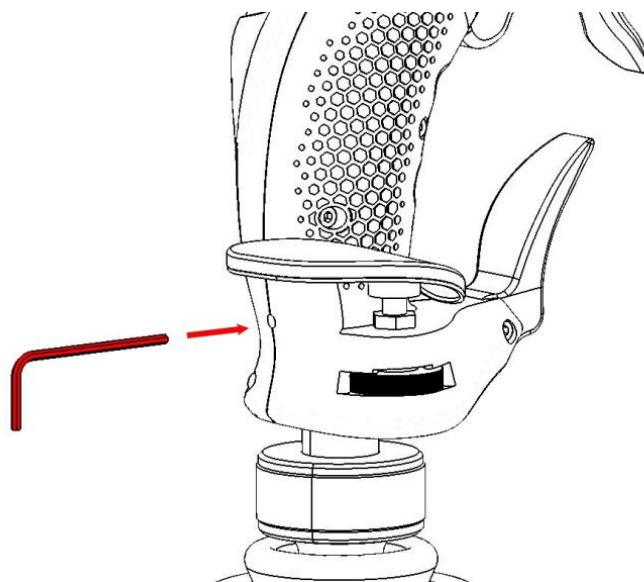


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EVO Grip – Twist Lock Setup

1. You can disable or enable the twist by unscrewing or tightening the screw as shown in the figure above.



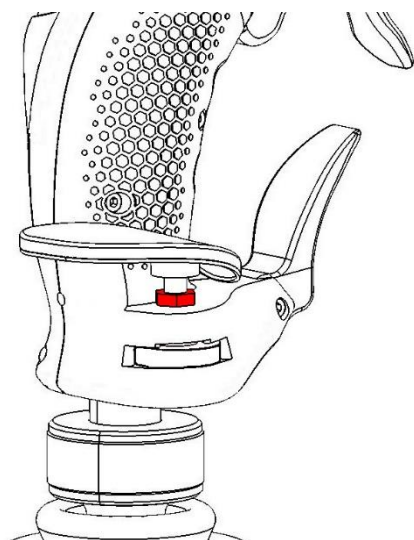


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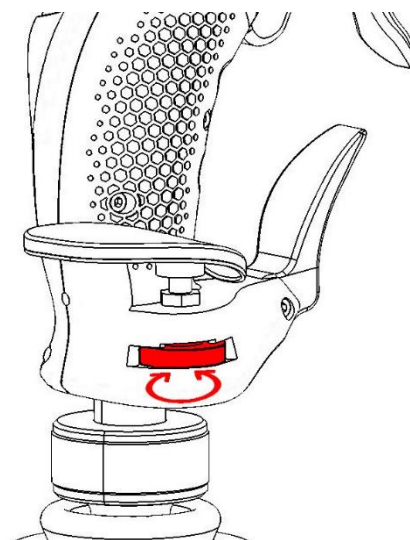
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EVO Grip – Palm rest adjustment

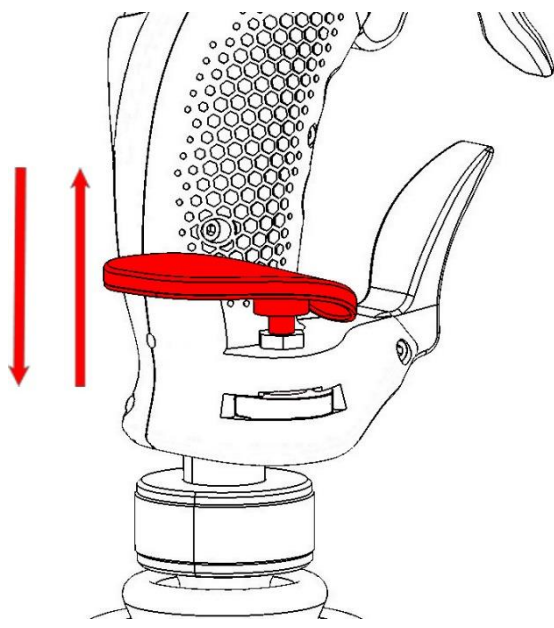
1. Loosen the nut shown in the picture.



2. Turn the indicated nut to adjust the height of the platform under the arm.



3. Turning the nut will raise or lower the platform. Find a comfortable position for your hand.



4. Tighten the specified nut to fix the platform under the arm.

