



FC TECHNOLOGIES

EVO Base (MK1)

EVO BASE (MK1)

User Guide





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EVO Base (MK1)

Introduction

Constructed from aviation-grade aluminum, EVO Base (MK1) (Figure 1) features a robust hinge mechanism with a built-in connector designed to accommodate the EVO Grip (MK1) or any compatible accessory.

Inside, precision magnet sensors (TLE5012) drive the X and Y axes of the hinge, communicating with the 32-bit STM32 controller through the SPI interface, enabling real-time tracking of axis rotation angles and grip button states. The controller packages and swiftly transmits this data to your PC via the USB interface.

This user guide equips you with comprehensive insights into the device, making it easier than ever to understand and maximize its potential. Learn how to effortlessly customize and fine-tune your EVO Base (MK1), from adjusting springs to suit your preferences to exploring various customization options, and unlock the full potential of your device, tailored to your needs and preferences.

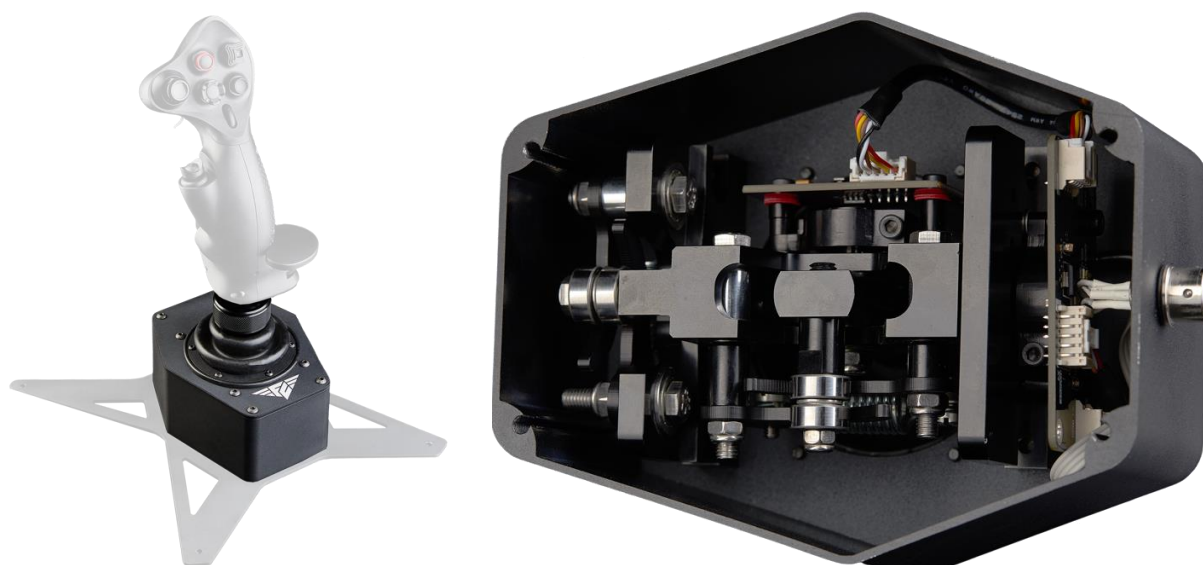


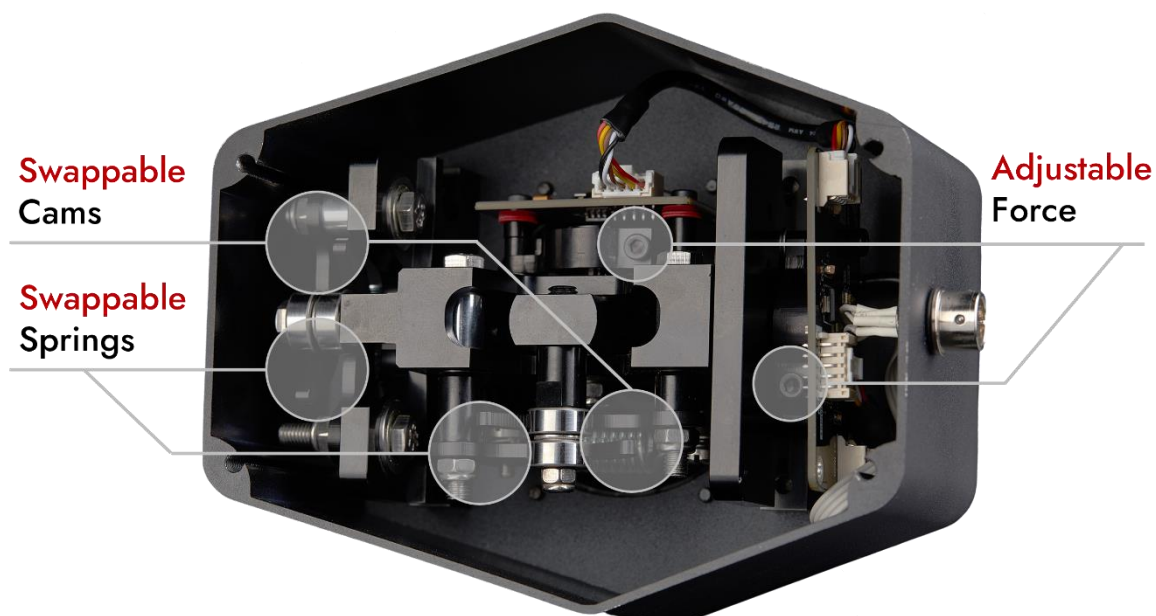
Figure 1. FC Technologies EVO Base for flight simulators.



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EVO Base (MK1)

EVO Base (MK1) - Features



Spring Options*

- Light
- Medium**
- Heavy

Cam Options*

- Soft Center**
- No Center

Force Adjustment

- X Axis
- Y Axis

*Springs and Cams are included

**Factory Installed

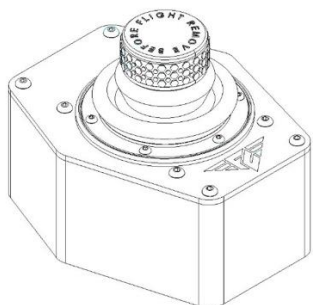


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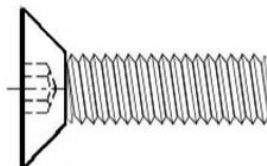
EVO Base (MK1)

Inside the Box

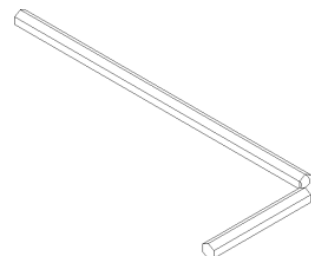
1x EVO Base (MK1)



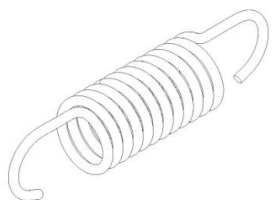
4x Screws (M4x12)



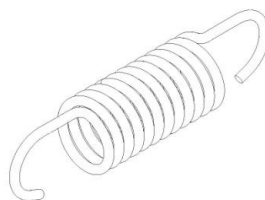
1x Hex key



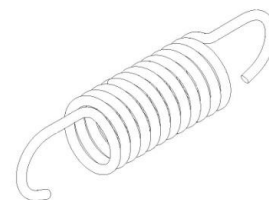
1x pair of light springs



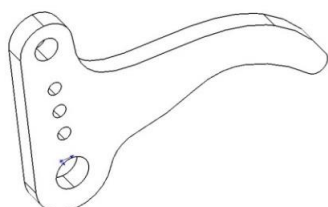
1x pair of medium springs*



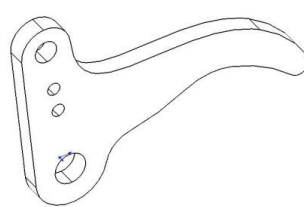
1x pair of heavy springs



1x pair of cams (no centre)



1x pair of cams (soft centre)*



1x USB Cable (2 m)



1x Baseplate

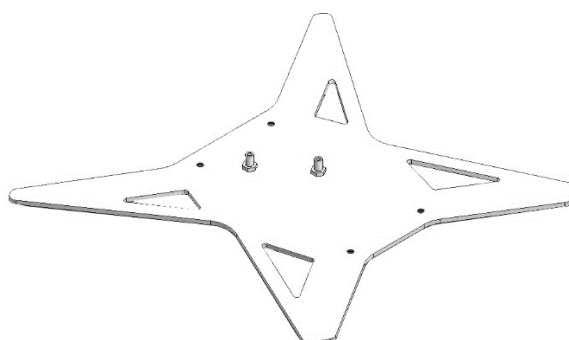


Figure 2. Contents of the EVO Base product packaging. *Factory installed.



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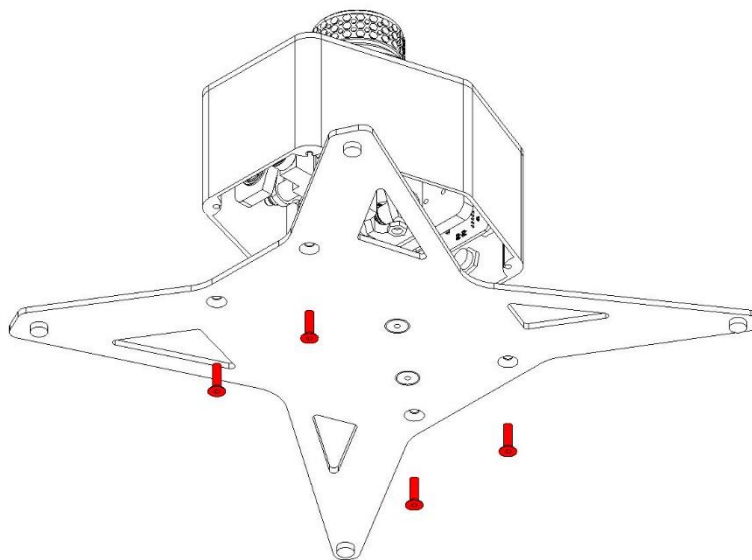
EVO Base (MK1)

EVO Base – Technical Overview

The EVO BASE device is a hinge mechanism with a mount for the EVO GRIP (or any other with a compatible connector and mount). Magnet sand TLE5012 microchips are located along the X and Y axis of the hinge mechanism. By receiving information from the microchips through the SPI interface, the STM32F411 controller obtains the axis rotation angle values by polling the handle through the SPI interface.

EVO Base – Installing the Baseplate

If you choose to not use the Desk Mount to attach the EVO Base and base to the table, the EVO Base can instead be mounted onto the Baseplate and then placed on your desk. Install the Baseplate to the EVO Base using the M4x12 screws and a hex key as shown below.



Disclaimer

It is advised to adopt a diagonal screwing sequence for secure and proper assembly. Non-compliance is the user's responsibility and may affect product integrity, with the manufacturer not liable for resulting issues.

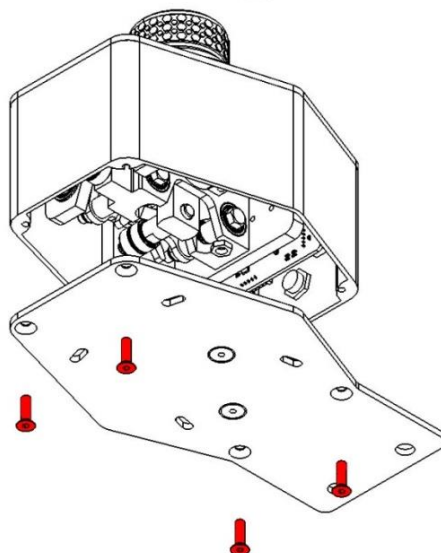


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EVO Base (MK1)

EVO Base – Installing the Adapter

If you are planning on setting up the EVO Base with the Desk Mount, attached the universal adapter using the M4x12 screws and hex key as shown below.



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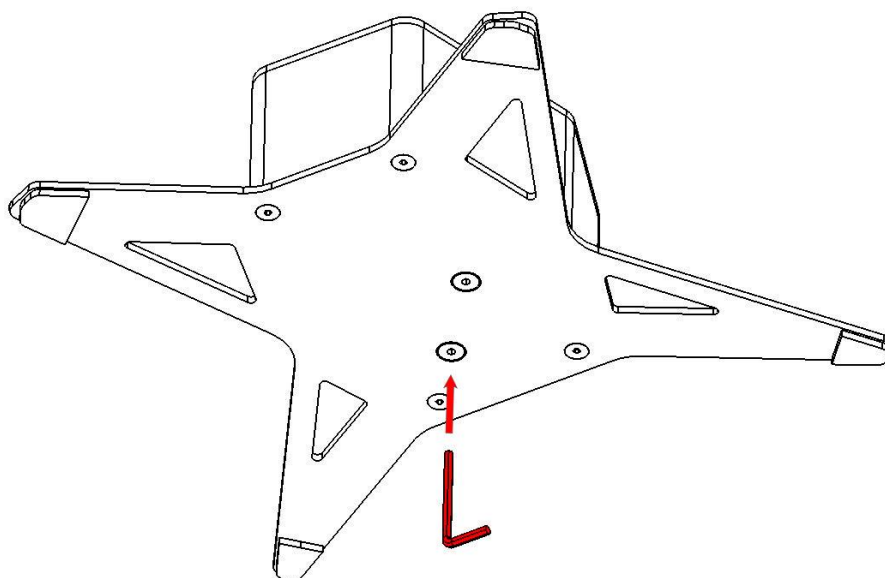


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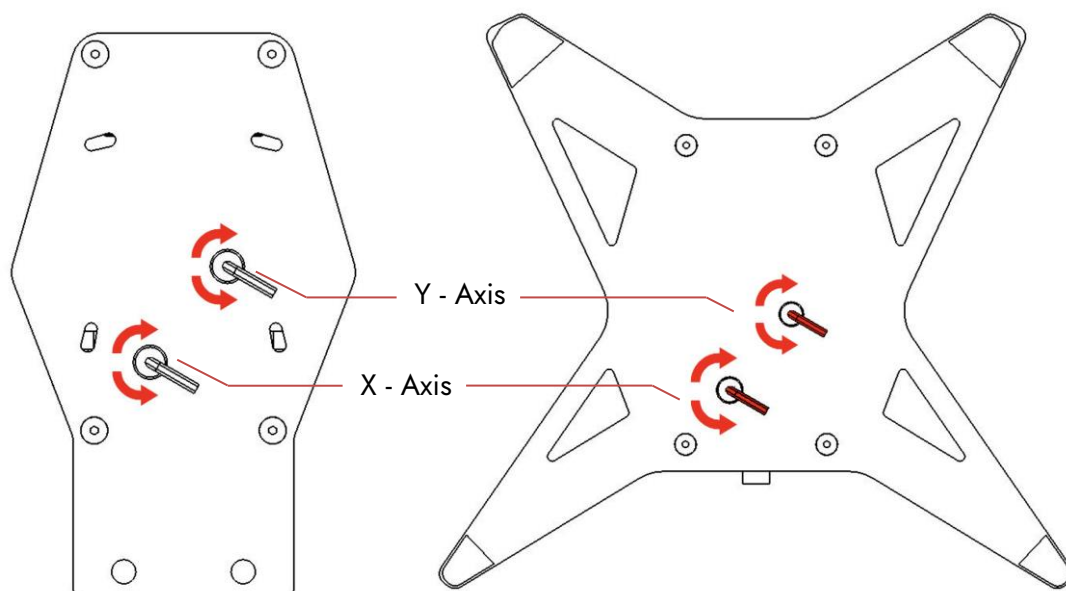
EVO Base (MK1)

EVO Base – Force Resistance Adjustment

1. Insert the hex key into the hole shown in the figure until it reaches the end. The same holes can be also found on the universal adapter.



2. Rotate the hex key as shown to adjust the force resistance desired.



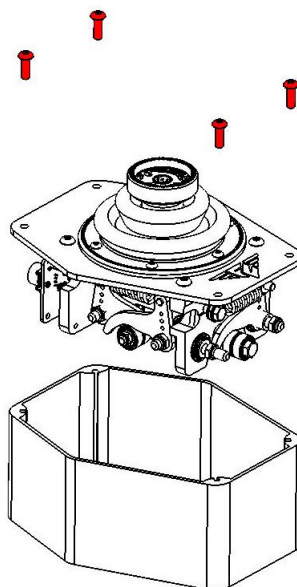


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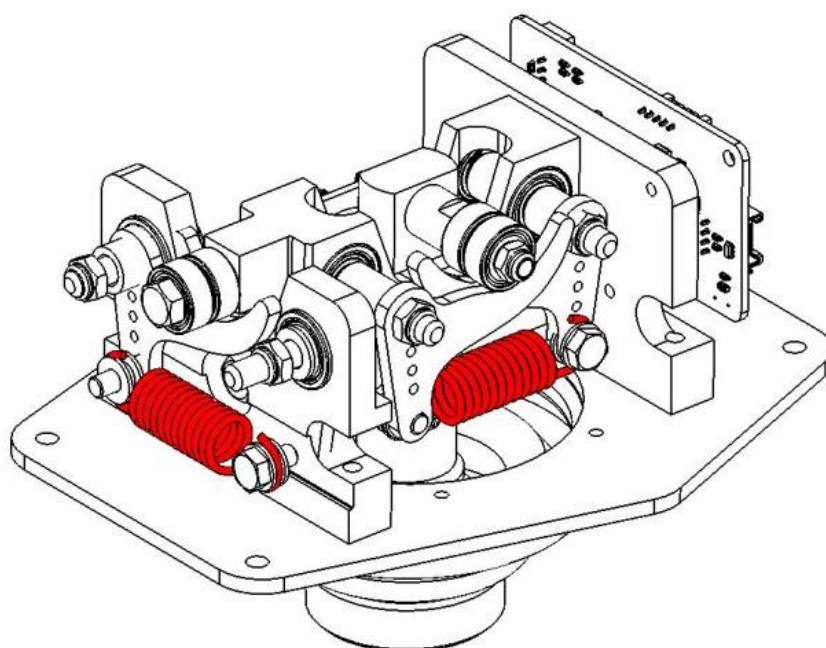
EVO Base (MK1)

EVO Base – Replacing the springs

1. Detach the base plate from its base and proceed to unscrew the highlighted screws located on the top section, then carefully separate it from the main body.



2. To replace the springs, use round-nose pliers to remove them from the cams. Choose the desired replacement springs and install them as shown below. Reinstall the body back to the base in the same fashion as step 1.



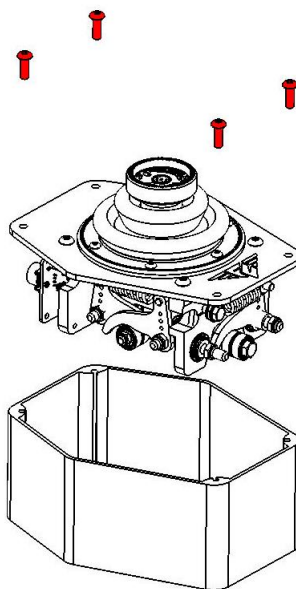


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EVO Base (MK1)

EVO Base – Replacing the cams

1. Detach the base plate from its base and proceed to unscrew the highlighted screws located on the top section, then carefully separate it from the main body.



2. To replace the cams, first remove the springs attached to them. Then, locate the highlighted nuts and proceed to unscrew them. This will allow you to detach the old cams and replace them with new ones.

