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### Tilta HDA-T15-E-FG

# Tilta Hydra Alien Mini Master Kit

Model: HDA-T15-E-FG

## INTRODUCTION

The Tilta Hydra Alien Mini Master Kit is a versatile and robust vehicle-mounted cinematography solution designed for capturing smooth, stable footage from various moving platforms. This kit is engineered with hydraulic damping and shock absorption to minimize vibrations and ensure high-quality video output, even in dynamic environments. It is compatible with a range of action cameras and smartphones, including DJI Action 3/4/5, DJI Pocket 3, and Insta360 X4/X3.



**Figure 1:** The Tilta Hydra Alien Mini Master Kit, showcasing its compact design and assembled state with a camera attached. This image provides an overview of the product's appearance and primary function.



**Figure 2:** An illustration highlighting the core features of the Hydra Alien Mini Master Kit, including its electronic suction cup, ability to

operate at speeds up to 100 km/h, lightweight design (2.17 lbs), load capacity (up to 1.32 lbs), hydraulic damping system, and multi-axis adjustment capabilities.

## WHAT'S IN THE BOX

The Tilta Hydra Alien Mini Master Kit includes the following components:

- 1 x Electronic Suction Cup (4.5") with Rosette Mounting Bracket
- 1 x Shock Absorbing Arm for Hydra Alien Mini
- 1 x 220g Counterweight
- 1 x Mounting Bracket for Hydra Alien Mini
- 1 x Support Arm for Hydra Alien Mini
- 1 x Shock Absorbing Head for Hydra Alien Mini
- 1 x Handlebar Mount for Hydra Alien Mini
- 1 x Soft Carrying Case for Hydra Alien Mini Master Kit

**Figure 3:** A visual representation of all components included in the Master Kit, clearly labeled for easy identification. This helps users verify package contents upon receipt.

## SETUP AND ASSEMBLY

Follow these steps to assemble and mount your Tilta Hydra Alien Mini Master Kit. Ensure all components are securely fastened before use.

### General Assembly

1. Attach the Shock Absorbing Arm to the Electronic Suction Cup using the rosette mounting bracket. Ensure it is tightened securely.
2. Mount the Support Arm to the Shock Absorbing Arm.
3. Connect the Mounting Bracket to the end of the Support Arm.
4. Attach the Shock Absorbing Head to the Mounting Bracket.
5. If using, attach the 220g Counterweight to the designated point on the Shock Absorbing Arm to balance the payload.
6. Secure your compatible action camera or smartphone (with Khronos Ecosystem) to the Shock Absorbing Head.

# MOTORCYCLES/ELECTRIC BIKES



**Figure 4:** Front view of the assembled Tilta Hydra Alien Mini Master Kit, illustrating the orientation of the components.

# MOUNTAIN BIKES



Front · Handle Bar



Front · Crossbar

**Figure 5:** Back view of the assembled Tilta Hydra Alien Mini Master Kit, showing the rear perspective of the mounting arm and suction cup.

## Mounting on Vehicles

The Hydra Alien Mini Master Kit offers flexible mounting options for various vehicles. Always ensure the mounting surface is clean and smooth for optimal suction.

### Motorcycles / Electric Bikes

Utilize the Handlebar Mount for secure attachment to handlebars or protective bars. The gear locking mechanism ensures a sturdy and secure fit.

- **Front - Handle Bar:** Attach the handlebar mount to the motorcycle's handlebar.
- **Side - Left and Right Protective Bars:** Secure the mount to the side protective bars for alternative angles.
- **Rear - Cargo Rack/Tail Light Mount:** Mount to the rear cargo rack or near the tail light for trailing shots.

The ultimate car-mounting solution  
Built with the same cutting-edge technology as the HYDRA ARM



New Electronic Suction  
Featuring a high-performance motor



100 km/h  
Up to



Weighs just  
**2.17 lbs (982.5g)**



Supports up to  
**1.32 lbs (600g)**



Hydraulic Damping System  
360° Infinite Adjustment



Multi-Axis Adjustment

Figure 6: The Hydra Alien Mini mounted on the front handlebar of a motorcycle, demonstrating a common setup for forward-facing shots.

## LOW-DRAG DAMPING

Inspired by the **TILTA** design aesthetics of the HYDRA ARM car-mounting system, combined with a lightweight aerospace aluminum alloy CNC shock-absorbing arm, offering **low-drag aerodynamic** functionality.

100 km/h  
Up to



Figure 7: The Hydra Alien Mini attached to the side protective bar of a motorcycle, providing a different perspective for filming.

# LIGHTWEIGHT

Crafted from **high-performance aerospace aluminum alloy**  
**precision CNC** machined from a single piece  
Entire kit weighs just **2.17 lbs (982.5g)**



Figure 8: The Hydra Alien Mini mounted on the rear cargo rack of a motorcycle, suitable for capturing rear-facing or trailing footage.

## Mountain Bikes

The handlebar mount is also suitable for mountain bikes, offering flexibility for various mounting points.

- **Front - Handle Bar:** Standard handlebar mounting.
- **Front - Crossbar:** Mount to the bike's crossbar for a lower profile.

## POWERFUL CORE

Compatible with small devices such as DJI Action 3/4, DJI Pocket 3, Insta360 X4/X3, and more.

**360°**  
Infinite Adjustment



Figure 9: The Hydra Alien Mini mounted on the handlebar of a mountain bike, showing its adaptability to different bike types.



## LOAD CAPACITY

**0.33 lbs ↔ 1.32 lbs**  
(150g) (600g)

### Hydraulic Damping System

Utilizes **automotive-grade damping oil** made in the US for track-level performance. Easy for users to add additional oil as needed.

**Figure 10:** The Hydra Alien Mini mounted on the crossbar of a mountain bike, offering a lower and more central camera position.

### Cars

The electronic suction cup provides strong and reliable attachment to smooth car surfaces.

Multi-Axis stabilization to reduce vibrations caused by bumpy road conditions.

## Hydraulic Damping

Quickly mounts to NATO receivers, enhancing shooting efficiency.

## NATO Standard Interface

## Aerospace-Grade Damping via Spherical Shock Absorbers

Effectively reduce high-frequency vibrations, absorbing residual shocks caused by movements like motorcycle gear shifts.

\*Hydraulic shock absorbers are swappable.

Figure 11: The Hydra Alien Mini securely mounted on the hood of a car, demonstrating its use for vehicle-mounted shots.

# INDUSTRY-LEADING PERFORMANCE

## TILTA HYDRA™ Multi-Axis Stabilization Platform

More centralized center of gravity with a smaller

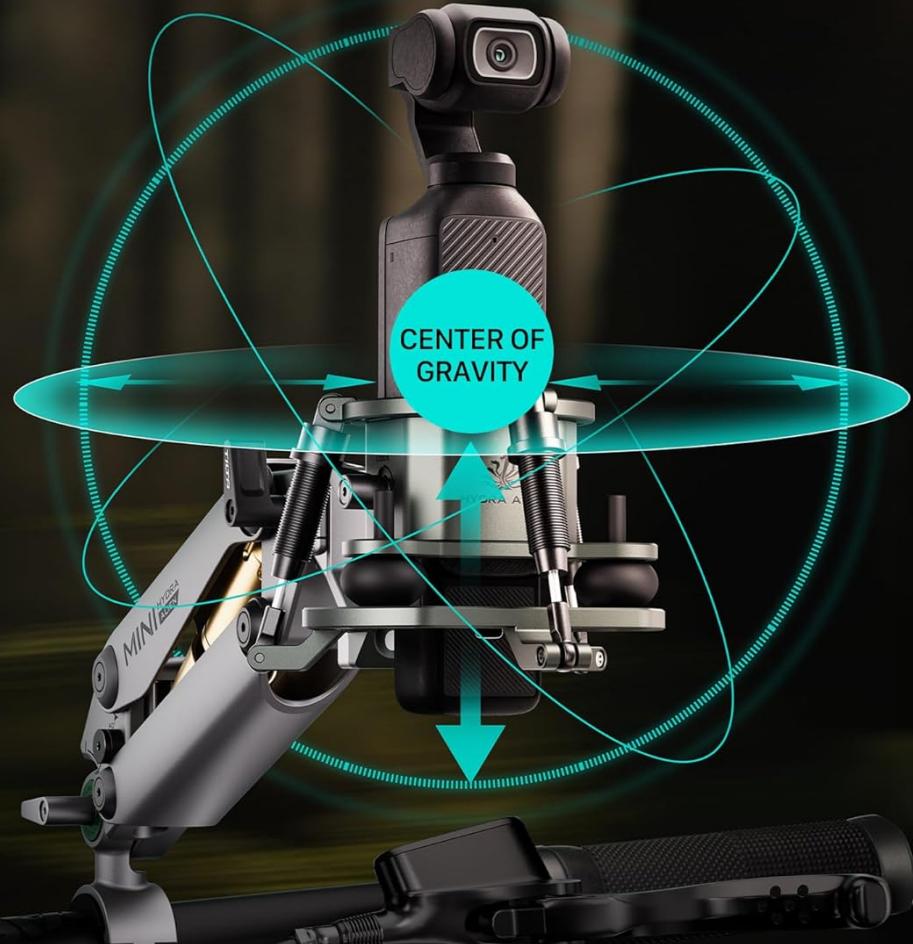


Figure 12: The Hydra Alien Mini mounted on the roof of a car, providing an elevated perspective for filming.

## OPERATION

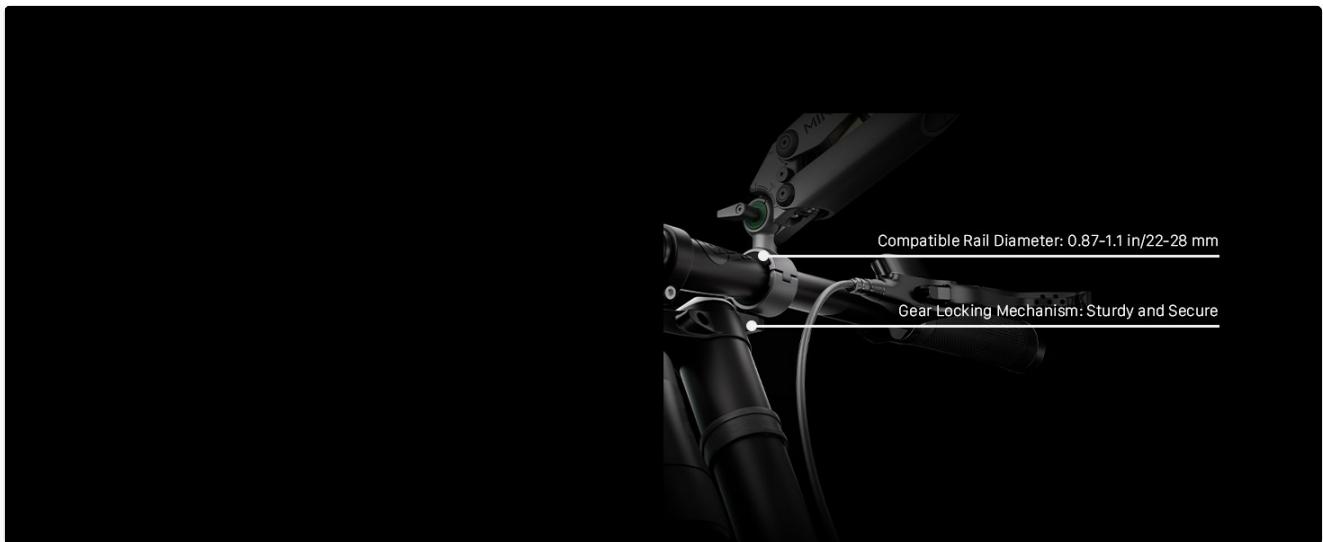
The Tilta Hydra Alien Mini Master Kit is designed for intuitive operation, focusing on stability and flexibility.

### Electronic Suction Cup

The electronic suction cup automatically maintains suction, providing a secure base for your equipment. Ensure the suction cup is fully charged before use. Press the power button to activate suction. The indicator lights will confirm proper adhesion.

### Hydraulic Damping System

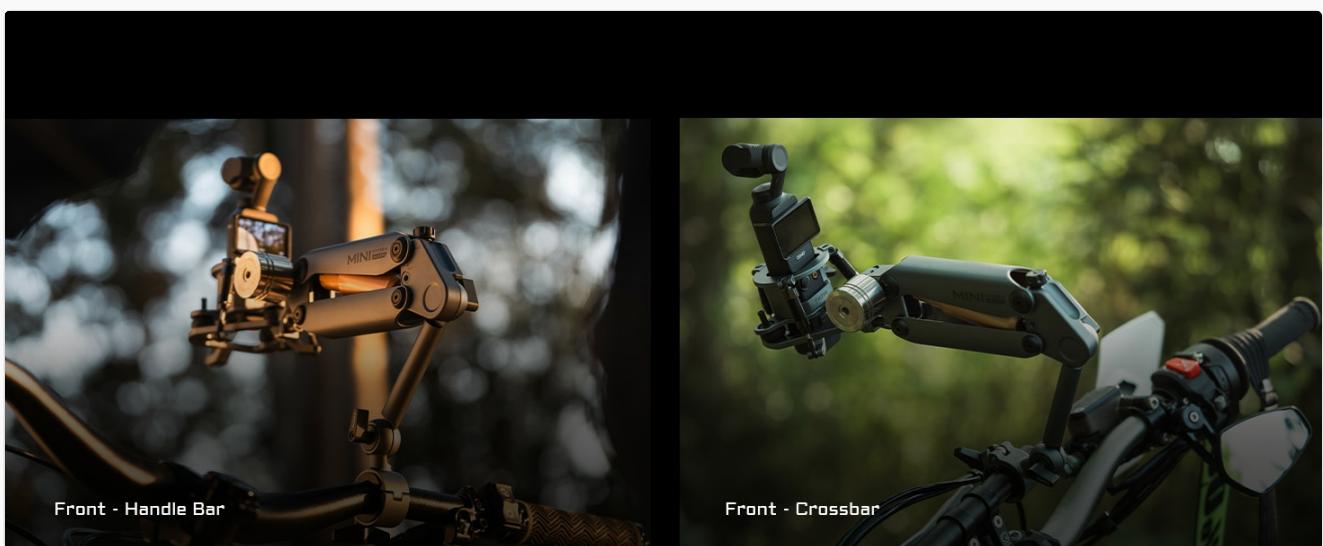
The hydraulic damping system, utilizing automotive-grade oil, provides track-level performance by absorbing shocks and vibrations. This system is crucial for maintaining smooth footage, especially at higher speeds or on uneven terrain.



**Figure 13:** An internal view of the hydraulic damping system, highlighting its mechanism and the supported load capacity range of 0.33 lbs (150g) to 1.32 lbs (600g).

## Shock Absorbing Head and Spherical Shock Absorbers

The kit includes a dedicated shock absorbing head compatible with DJI Osmo Pocket 3, and features aerospace-grade spherical shock absorbers. These components work in conjunction to effectively reduce high-frequency vibrations and absorb residual shocks, such as those caused by motorcycle gear shifts, ensuring ultra-smooth footage.



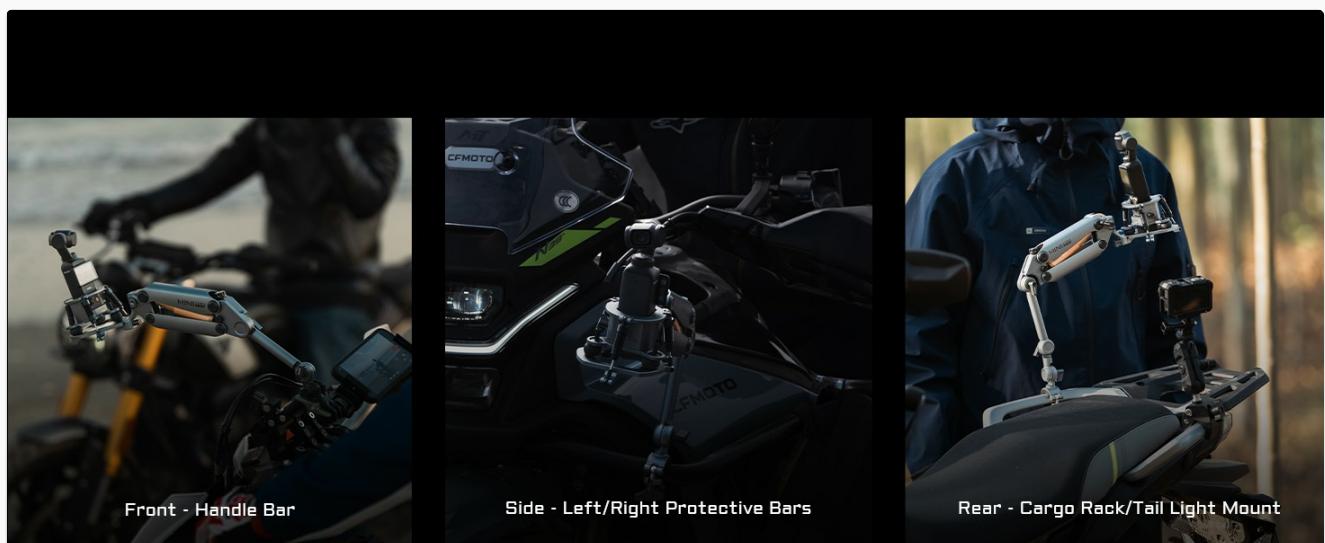
**Figure 14:** This image details the multi-axis stabilization provided by the hydraulic damping and the effectiveness of the spherical shock absorbers in reducing vibrations from bumpy road conditions.

## Adjustments and Positioning

The system allows for 360-degree infinite adjustment, enabling precise camera positioning for various shot requirements. Loosen the adjustment knobs, position the arm and head as desired, and then tighten the knobs to lock the position.



**Figure 15:** A visual representation of the 360-degree infinite adjustment feature, allowing for versatile camera angles and precise framing.



**Figure 16:** This diagram illustrates how the design achieves a more centralized center of gravity, contributing to the system's industry-leading stabilization performance.

## MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your TILTA Hydra Alien Mini Master Kit.

- **Cleaning:** After each use, wipe down all components with a soft, dry cloth. For stubborn dirt, use a slightly damp cloth and then dry thoroughly. Avoid abrasive cleaners or solvents.
- **Suction Cup Care:** Keep the suction cup pad clean and free of dust or debris. Store the suction cup with its protective cover to prevent damage to the seal.
- **Hydraulic System:** The hydraulic damping system uses automotive-grade oil. While designed for durability, if you notice a decrease in damping performance, consult TILTA support for guidance on adding additional oil if necessary.
- **Storage:** Store the kit in its soft carrying case in a cool, dry place away from direct sunlight and extreme temperatures.
- **Inspection:** Regularly inspect all screws, joints, and mounting points for tightness. Ensure no components are loose or damaged before each use.

## TROUBLESHOOTING

This section addresses common issues you might encounter with your Tilta Hydra Alien Mini Master Kit.

### Poor Suction

- **Cause:** Dirty or uneven mounting surface.
- **Solution:** Ensure the mounting surface is clean, dry, and smooth. Wipe both the surface and the suction cup pad.
- **Cause:** Low battery in electronic suction cup.
- **Solution:** Recharge the electronic suction cup battery.
- **Cause:** Damaged suction cup seal.
- **Solution:** Inspect the rubber seal for cracks or deformities. Contact support if damaged.

### Excessive Vibrations in Footage

- **Cause:** Payload exceeds maximum weight recommendation.
- **Solution:** Ensure your camera setup (including accessories) does not exceed 1.32 lbs (600g).
- **Cause:** Loose connections.
- **Solution:** Check all screws and joints, especially where the arm connects to the suction cup and the head connects to the arm. Tighten as necessary.
- **Cause:** Insufficient counterweight.
- **Solution:** Ensure the 220g counterweight is properly installed if needed to balance the camera setup.
- **Cause:** Extreme road conditions or vehicle vibrations.
- **Solution:** While the kit is designed for damping, extreme conditions may still introduce some motion. Adjust vehicle speed or choose smoother routes if possible.

### Difficulty Adjusting Arm/Head

- **Cause:** Adjustment knobs are too tight.
- **Solution:** Loosen the adjustment knobs sufficiently before attempting to reposition the arm or head.
- **Cause:** Dirt or debris in joints.
- **Solution:** Clean the joints and ensure they are free of obstructions.

## SPECIFICATIONS

Feature	Detail
Model Number	HDA-T15-E-FG
Item Weight	2.5 pounds (1.13 kg)
Maximum Weight Recommendation	1.32 lbs (600 grams)

Feature	Detail
Compatible Devices	DJI Action 3/4, DJI Pocket 3, Insta360 X4/X3, Smartphones with Khronos Ecosystem
Damping System	Hydraulic Damping, Spherical Shock Absorbers
Material	Aerospace-grade aluminum alloy
Color	Forest Green
Batteries	1 Nonstandard Battery (included for electronic suction cup)
UPC	810153173489

## WARRANTY AND SUPPORT

Tilta products are manufactured to high-quality standards. For specific warranty information, please refer to the warranty card included with your product or visit the official Tilta website. Keep your proof of purchase for warranty claims.

## Customer Support

If you encounter any issues not covered in this manual or require further assistance, please contact Tilta customer support through their official website or the retailer from whom you purchased the product. Provide your product model number (HDA-T15-E-FG) and a detailed description of the issue for faster service.

**Tilta Official Website:** [www.tilta.com](http://www.tilta.com)

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Tilta Hydra Alien Mini Master Kit User Manual

## Related Documents - HDA-T15-E-FG



### [Tilta Hydra Alien Pro HDA-T18 Shock Absorbing Arm User Manual](#)

Comprehensive user manual for the Tilta Hydra Alien Pro HDA-T18 shock absorbing arm and head. Covers setup, balancing, damping adjustments, wireless control, system settings, firmware upgrades, and regulatory compliance.

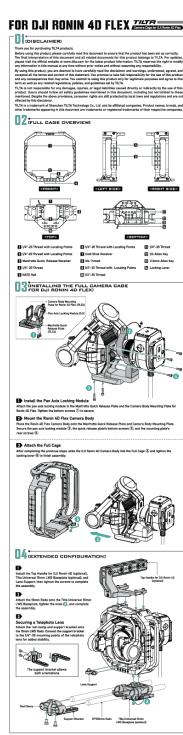
WIRELESS MONITORING MODULE FOR  
HYDRA ELECTRONIC SUCTION CUP  
电动吸盘无线监测模块



TILTA

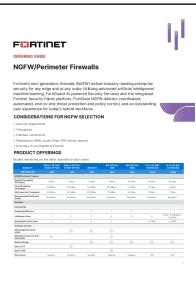
### [TILTA Wireless Monitoring Module for Hydra Electronic Suction Cup User Manual](#)

Comprehensive user manual for the TILTA Wireless Monitoring Module for Hydra Electronic Suction Cup, covering setup, operation, specifications, and warranty. Learn how to use the device, its features, and troubleshooting tips.



## [DJI Ronin 4D Flex Camera Cage Installation and Configuration Guide](#)

A comprehensive guide to installing and configuring the Tilta Camera Cage for the DJI Ronin 4D Flex, including component overviews and extended setup options.



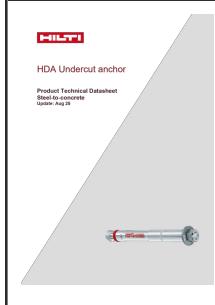
## [Fortinet NGFW/Perimeter Firewalls Ordering Guide](#)

This ordering guide details Fortinet's Next-Generation Firewalls (NGFW) and Perimeter Firewalls, highlighting their advanced AI/ML capabilities, FortiGuard services, and the integrated Fortinet Security Fabric for comprehensive enterprise threat protection and policy control.



### [TTK Digital Liquids Leak Detection Systems for Indoor Applications: Design & Application Guide](#)

This guide details TTK's digital liquid leak detection systems for indoor applications, covering product specifications, design layouts, and practical applications. It is intended for engineering consultants, contractors, and end-users, providing comprehensive information on system components like FG-NET, FG-BBOX, and various alarm units, sensors, and accessories.



### [Hilti HDA Undercut Anchor: Technical Data and Specifications](#)

Comprehensive technical datasheet for the Hilti HDA Undercut Anchor, detailing specifications, load capacities, approvals, and installation guidelines for steel-to-concrete applications.