

QUICK START GUIDE | Vertical Camera Payload

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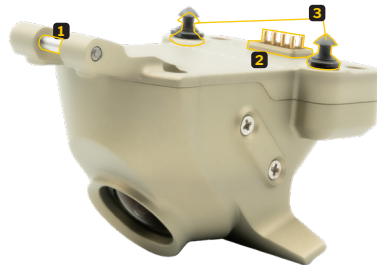
The Lightweight Vertical Camera Payload is designed to seamlessly integrate with the Loki MkII Tactical Drone and Sigyn MkII Ground Robot, enhancing their operational capabilities with an additional perspective. Featuring a 150° horizontal and 120° vertical viewing angle, the 45° down/upward-facing embedded camera enables operators to monitor areas beyond the primary front camera's field of view

SYSTEM COMPONENTS

▶ PAYLOAD CRADLE ◀



Upward-facing camera



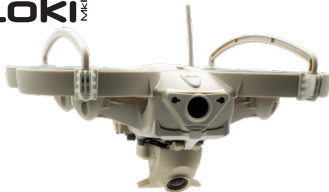
Downward-facing camera

- 1 Anchoring Eyelet
- 2 8-Way Connector Pins
- 3 Rivets

● Vertical Camera Payload related elements

▶ COMPATIBLE UNITS ◀

Loki[®]
MkII^{*}



Sigyn[®]
MkII^{**}



* Requires Sky-Hero Payload Bracket for Loki MkII and Sigyn MkI (not included)

** The operation of the original Vertical Camera Payload on the Sigyn MkI requires a technical adaptation. Please refer to the detailed instructions in the following pages for proper setup and integration.

▶ ACTIVATION CONTROL ◀



- 1 ON/OFF
- 2 Menu
- 3 Unit Activation

● GCS MkII related elements

ASSEMBLE



Ensure that the selected unit is switched off (battery removed for Loki MkII) before following the payload fitting instructions below, otherwise internal components could be damaged

1. Take the appropriate payload connection bracket and fit to body of the unit intended to use the Vertical Camera Payload **► Fig. 1**



Only applies to Loki MkII sUAV or Sigyn MkI sUGV, as the attachment system is already integrated into the top of the Narfi MkI Tactical Camera Head. Refer to the Loki MkII/Sigyn MkI Payload Bracket Quick Installation Guide for setup instructions

2. Remove rubber cover from pogo pin connector and fit the Payload Cradle into the appropriate bracket on the selected unit: **► Fig. 2**
 - a) Insert the anchoring eyelet **1** first
 - b. Make sure retaining clips **2** and 8-way connector pins **3** are aligned
 - c) Click rear of the payload cradle into retaining holes on payload bracket
 - d. Check that the retaining clips and pins of the 8-way connector are fully engaged
3. The Vertical Camera Payload is now installed within the selected unit

OPERATE

A. ACTIVATING EQUIPMENT **► Fig. 3**

1. Switch on the GCS MkII controller by pressing and holding the ON/OFF button **1**
2. Power up the selected unit, either by inserting the battery into its compartment on the Loki MkII sUAV or by pressing the ON/OFF button on the Sigyn MkI sUGV
3. Switch on the selected unit link **3** from the handheld controller

B. GCS MkII DISPLAY INFORMATION **► Fig. 3**

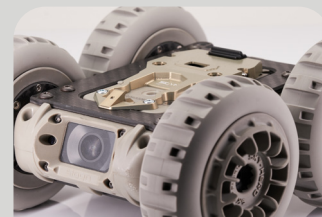
Once the robot and the controller are operational and bound together, you'll notice that:

In the GCS MkII interface, a yellow-highlighted letter «P» appears in the top-right corner of the screen. This indicates that the system has successfully detected the payload and properly assigned its additional functionalities

FIG. 1



Loki MkII sUAV Payload Connection Bracket



Sigyn MkI sUGV Payload Connection Bracket

FIG. 2

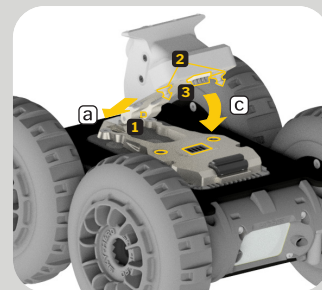
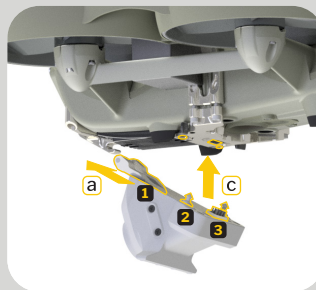


FIG. 3



FIG. 4

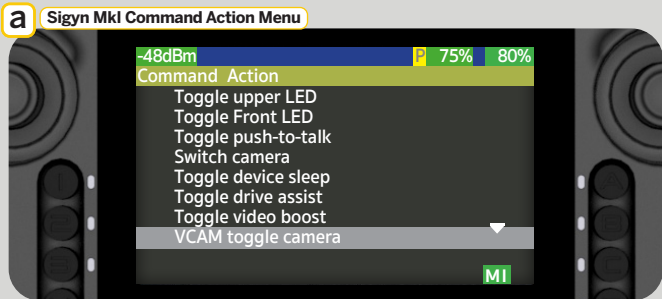
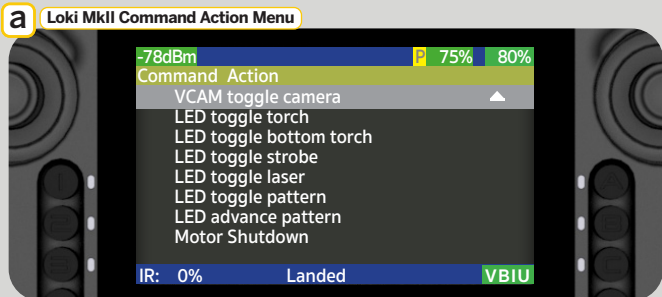
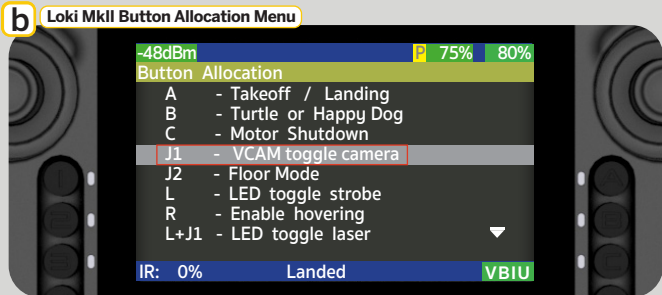


FIG. 5



C. INITIATION OF THE VERTICAL CAMERA PAYLOAD

There are two ways to activate the feature of the selected payload:

a) Using the Command Action Menu → Fig. 4

To activate the Vertical Camera Payload via the Command Action Menu:



Note that there are some differences in the order of actions listed in the menu between the Loki MkII sUAV and the Signy MkI sUGV

1. On the GCS MkII, go to the main menu by clicking the D button ②
2. Select the first proposed menu entry, «Command action»
3. In the list of available actions, you will find the options related to the Vertical Camera Payload. Select the «VCAM toggle camera» action and activate it by pushing the right joystick to the right. To deactivate the camera, repeat the same action

b) Using GCS MkII Buttons → Fig. 5

To assign the Vertical Camera Payload feature to a button or combination of buttons:

1. On the GCS MkII, go to the main menu by clicking the D button ②
2. Navigate to the «Device Settings» menu and select the specific device for which you want to configure an action for a single button or a combination of two buttons.
3. Select the «Button Allocation» menu
4. Select the desired button or combination of buttons to customize and assign to the «VCAM toggle camera» function.
5. After completing the selection, position the designated unit in the intended initiation area and activate the function by pressing the specified button(s)



Note that when the «VCAM toggle camera» action is activated, the display on the GCS MkII controller will switch from the view provided by the camera(s) integrated into the drone or ground robot to the view from the vertical camera. This is not a split-screen display; only one view is displayed at a time

VERTICAL CAMERA PAYLOAD ADAPTATION for Sigyn MkII sUGV

The vertical Camera Payload is specifically designed for use with the Loki MkII sUAV. However, with minimal modifications, it can also be adapted for integration with the other devices of the suite, Sigyn MkI sUGV and Narfi MkI tactical camera.

For users looking to extend Vertical Camera Payload's functionality beyond the Loki MkII drone, the adaptation process involves slight adjustments, primarily requiring the reorientation of the camera within the payload housing. Refer to the following sections for detailed instructions.

REQUIRED ITEMS

Component



1x Vertical Camera Payload

Tools



ADJUSTMENT STEPS

Please refer to the explanations below and to the diagrams overleaf for details of the various steps that need to be followed:

STEP 1 OPEN THE PAYLOAD

- Consider the bottom plate of the payload, where the pogo pin and retaining clips are positioned
- Remove the 4 screws **1** (M2 x 8mm, HEX 1.5) securing the bottom plate
- Lift the plate to access the internal components

STEP 2 DETACH THE CAMERA

Remove the 4 screws **2** (M2 x 4mm, PH1) holding the camera in place (2 on each side)

Disconnect the white connector **3** from the electronic board that is mounted on the bottom plate

STEP 3 INVERT THE CAMERA

Carefully turn the camera **4** upside down

STEP 4 REINSTALL THE CAMERA

Secure the camera using the previously removed 4 screws **2** (M2 x 4mm, PH1)

Reconnect the white connector **3** to the electronic board mounted on the bottom plate, ensuring it is positioned exactly as it was initially

STEP 5 CLOSE THE PAYLOAD

Reassemble the two sections of the payload by carefully aligning and securing them

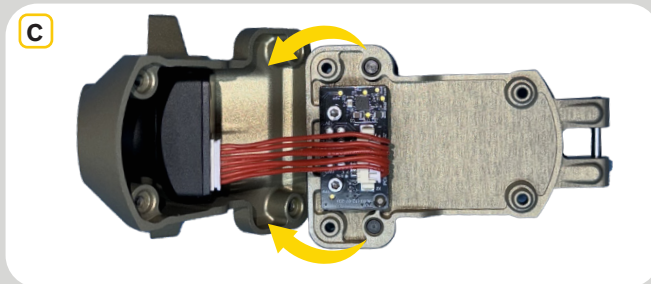
Reattach the bottom plate with the 4 black screws **1** (M2 x 8mm, HEX 1.5)

The camera is now fully compatible with Sigyn MkII sUGV and Narfi MkI Tactical Camera.

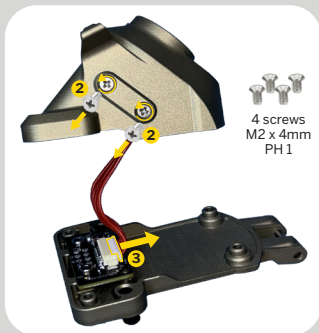


The inverted camera is no longer compatible with the Loki MkII sUAV unless the previously outlined steps are followed to reposition the camera within the Vertical Camera Payload.

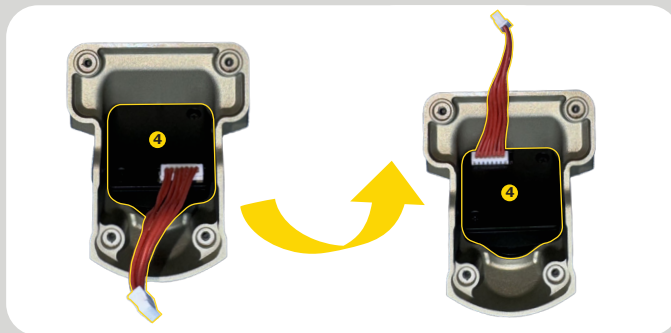
STEP 1



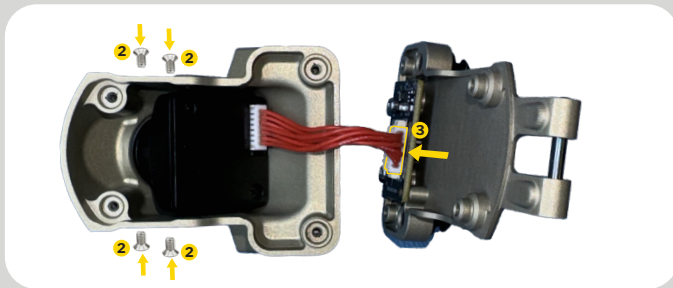
STEP 2



STEP 3



STEP 4



STEP 5

