QUICK START GUIDE | SIGYN MkI Tactical Ground Robot

version 1.0.0 | December 2022

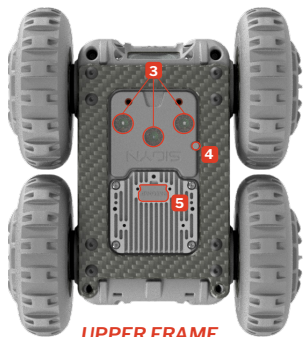## SYSTEM COMPONENTS

Sigyn MkI

An operator friendly robot that provides teams with superior scouting through two ultra-sensitive Day-Night cameras. While 150-degree views allow for an impressive scope, dimmable IR LEDs on the front, back, and top of the vehicle provide video clarity and NVG lighting.

GCS MkII

A small remote ground controller with highly intuitive cybersecure interface that simultaneously handles the control and monitoring of multiple unmanned vehicles, including the operation of their sensors and plug-in payloads* (*in option).

FRONT MASK

1 Camera
2 Front IR LEDs
3 Upper IR (L/R) and status LEDs
4 Binding button with rubber cap
5 Payload connector with rubber cap
6 Lower IR LEDs
7 ON/OFF Button
8 Battery cover

■ *Sigyn MkI related elements*

UPPER FRAME

LOWER FRAME

FRONT MASK

1 ON/OFF Button
2 Left Joystick/J1
3 Right Joystick/J2
4 Device buttons
5 Action buttons
6 Display Screen
7 Action button Left
8 Action button Right
9 Push-to-Talk Port
10 Headphone Port
11 Audio/Video ouptut Port
12 Micro SD Card Slot
13 USB-C Port
14 LED Charging indicator

● *GCS MkII related elements*

UPPER BUTTONS

LOWER PORTS

START

A Fully charge the GCS MkII using USB-C cable in dedicated port **13** with packaged charger plug until charge LED indicator **14** is **green** ▶ **Fig. 1**

B Insert charged batteries in the Sigyn MkI :

1. Unscrew the battery cover **8** on the lower frame

2. Insert the batteries starting with the positive terminal and then push in the negative terminal (label) ▶ **Fig. 2**

3. Screw back the battery cover **8**

CONTROL

OPTION A You own a *Sigyn MkI Core Tactical System* :

1. Turn On the GCS MkII by pressing ON/OFF button ⏻ **1**

2. On GCS start-up prompt, define your **«Region of use (CE/FCC)»** to automatically configure the frequency and power limits of UAV/ UGV control and video signal in compliance with the regulations of the country of operation ▶ **Fig. 3**

3. Enter the menu (press Button ▭ **5**), navigate and select the **«GCS Settings Menu»**

4. In this menu, select first **«Joystick Calibration»** and follow the instructions

5. Exit the menu (press Button ▭ **5**)

In the Sigyn MkI Core Tactical System, the GCS MkII is already bound with the Sigyn MkI. You can go directly to the CONNECT section

How to navigate in GCS MkII Menu

Press button ▭ **5** : Access or Exit the menu
Right Joystick/J2 **3** to the Right **J2** ▶ : Go a level down and/or confirm
Right Joystick/J2 **3** to the Left ◀ **J2** : Go back
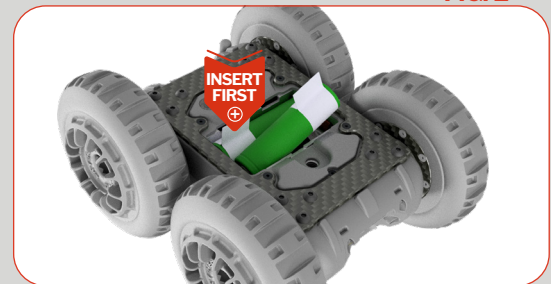Right Joystick/J2 **3** Up ▲ and Down ▼ : Scroll the menu

FIG. 1

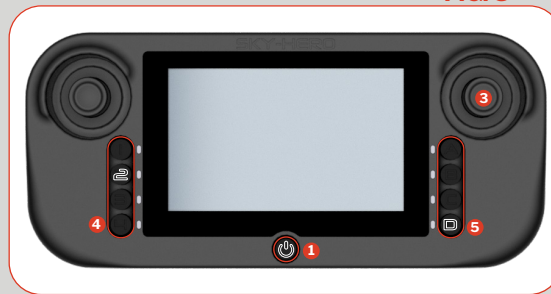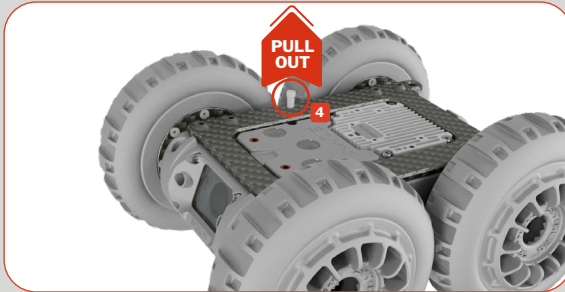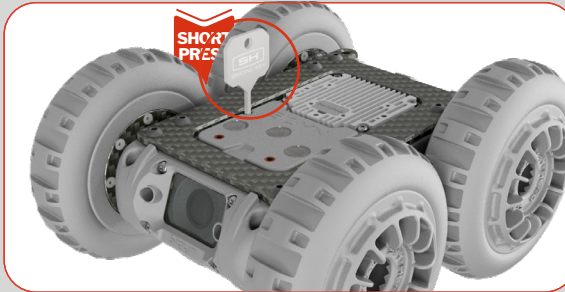**FIG. 2**

INSERT FIRST ⊕

FIG. 3

FIG. 4

FIG. 5

FIG. 6

OPTION B   You are in possession of a *Sigyn MkI Extension Set* :

1. Turn on the GCS MkII by pressing ON/OFF button ⏻ **1**

2. Enter the menu (press Button ▭ **5**), navigate and select **«Version »**

3. Check if your remote firmware is **3.0.0** :
    - If Yes, proceed to step 4 to bind the Sigyn MkI and GCS MkII
    - If No, proceed first with the firmware upgrade of GCS MkII and Loki MkII

4. Then, bind the GCS MkII together with the Sigyn MkI :
    - Turn On the Sigyn MkI by pressing central button **7** on the lower frame. The status LED on upper frame **3** becomes green ▶ **Fig. 4**
    - You have 40 sec. to press the binding button on the device. If this time limit is passed, turn off the Sigyn MkI and restart step 4
    - Turn the Sigyn MkI back on the upper frame and remove the small protective rubber cap **4** next to the upper LEDs **3** ▶ **Fig. 5**
    - You will see the small LED binding button with a steady red light
    - Use the binding key to gently press it once. The LED button is flashing green light. Now, bind the device with the remote ▶ **Fig. 6**
    - On the GCS MkII, enter the menu (press Button ▭ **5**), navigate to **«Advanced Settings Menu»** and select it.
    - In this menu, select **«Device Binding»**, navigate to the desired left button **4** to allocate to your device, select it; then select **«Loki2, Sigyn»** on the following screen. A pop-up message appears on the GCS MkII screen showing **«Connecting»** - along with incrementing dots - to indicate the binding operation is progressing.
    - Once the binding is complete, the GCS MkII displays the Sigyn MkI A/V stream. On the Sigyn MkI, the binding LED button turns steady green.
    - Put the rubber cap back on the binding button on the Sigyn MkI

CONNECT

A   Turn On the Sigyn MkI by pressing the central button **7** on the lower frame The LED on upper frame **3** will show a green light

B   Turn On the GCS MkII by pressing ON/OFF button ⏻ **1**

C   On the GCS MkII, push the button on the left **4** associated to the Sigyn MkI tactical ground robot ▶ **Fig. 3**

D   You will then see on the GCS MkII the A/V stream transmitted by the Sigyn MkI. You can start operating the ground robot

OPERATE

Sigyn MkI is operated using the GCS MkII joysticks, top and right buttons

A Basics ⊢▶ Fig. 7

- To drive Forward : orient the Right Joystick ❸ upward
- To drive Backward : orient the Right Joystick ❸ downward

📝 Note that the forward/backward speed is progressive. The more you move the joystick forward/backward, the faster the Sigyn will move, until Max Speed is reached

Max speed is set by default (100%) but can be fine tuned. To do so, enter the GCS MkII menu , navigate and select the **«Device Settings»** menu. Then, opt for **«Sigyn»** sub-section and select **«Max Speed»**

- To turn Left : orient the Right Joystick ❸ to the left
- To turn Right : orient the Right Joystick ❸ to the right

📝 Turn speed is set by default (100%) but can be fine tuned. To do so, enter the GCS MkII menu, navigate and select the **«Device Settings»** menu. Then opt for **«Sigyn»** sub-section and select **«Turn Speed»**

B Advanced Drive ⊢▶ Fig. 8

- To operate an automatic clock-wise rotation of 90°, push the Left Joystick/J1 ❷ to the right
- To operate an automatic counterclock-wise rotation of 90°, push the Left Joystick/J1 ❷ to the left
- To operate an automatic rotation of 180°, push the Left Joystick/J1 ❷ downward

C Preset features

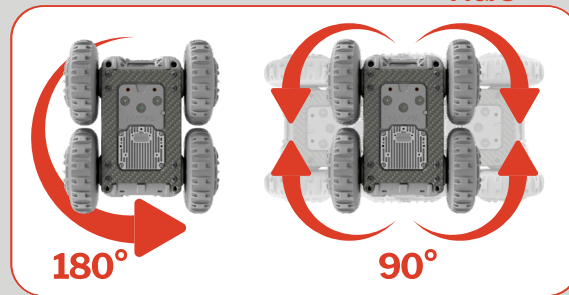- The Motor Shutdown function of the Sigyn MkI is already attributed to the ⊏ ❺ button on the GCS Mk2

📝 Other specific features of the Sigyn MkI can be attributed to GCS MkII right ❺ and top buttons ❼ ❽. It concerns : Toggle Upper/Bottom LED, Toggle push-to-talk, Switch Camera and Toggle device sleep

To configure it, enter the menu, navigate and select the **«Device Settings»** menu; then opt for **«Sigyn»** sub-section and select **«Button allocation»** entry

FIG. 7

FIG. 8

180°   90°

SH
SKY-HERO

Missing parts/accessories or need assistance with this unit ?
Contact your local distributor: sky-hero.com/distributors