

GLAMBOT®: ASSEMBLY INSTRUCTIONS

Guide to assembling the modular components

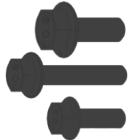


Estimated time: 30min



Team lift

HARDWARE INCLUDED



[8] H1 M8 x 1.25 x 30L flanged hex head screw

[8] H2 M6 x 1.0 x 25L flanged hex head screw

[4] H3 M6 x 1.0 x 16L flanged hex head screw



TOOLS INCLUDED

1/4" drive ratchet wrench

10mm 1/4" drive socket

12mm 1/4" drive socket



SPACE REQUIREMENTS

A minimum space requirement of 12' wide x 12' long x 10' high is required.

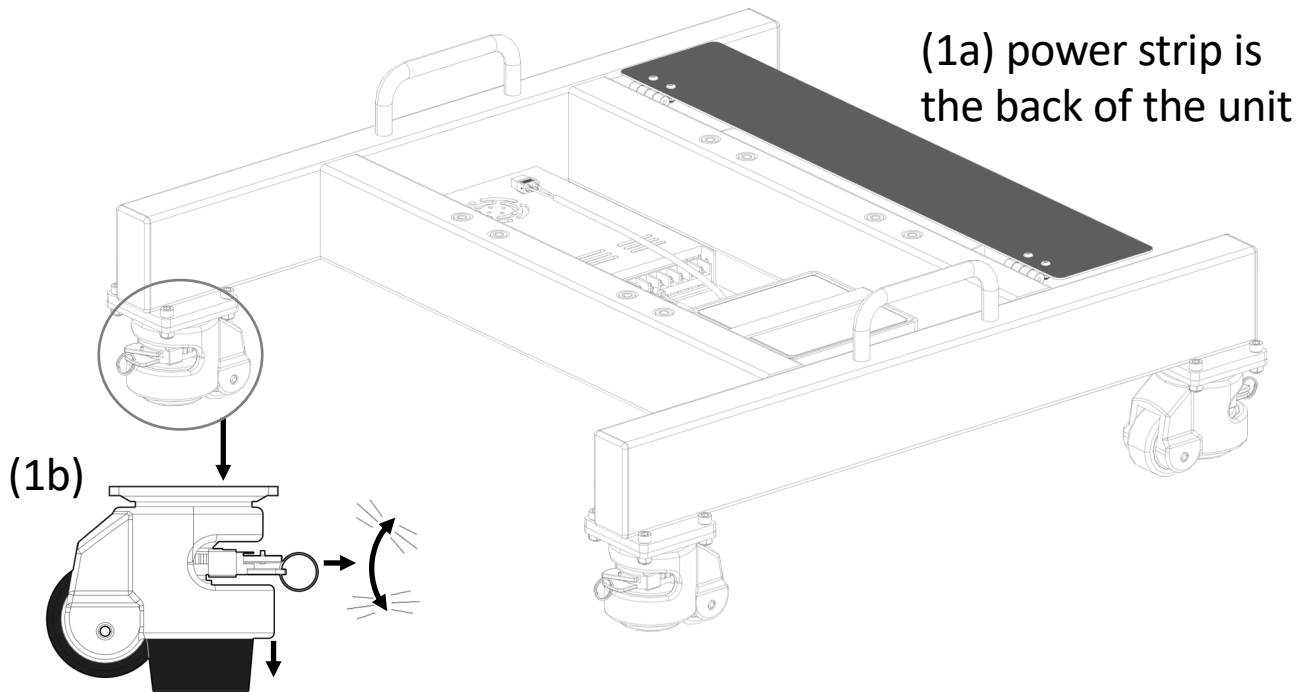
Get a step-by-step video tutorial on setting up your Glambot®.



WARNING: A collision with Glambot® may cause physical damage to property, person or the robot itself. Ensure proper clearance of the robot at all times. All persons and objects must remain outside the work envelope. By operating Glambot® you are assuming the risks and liabilities associated with it.

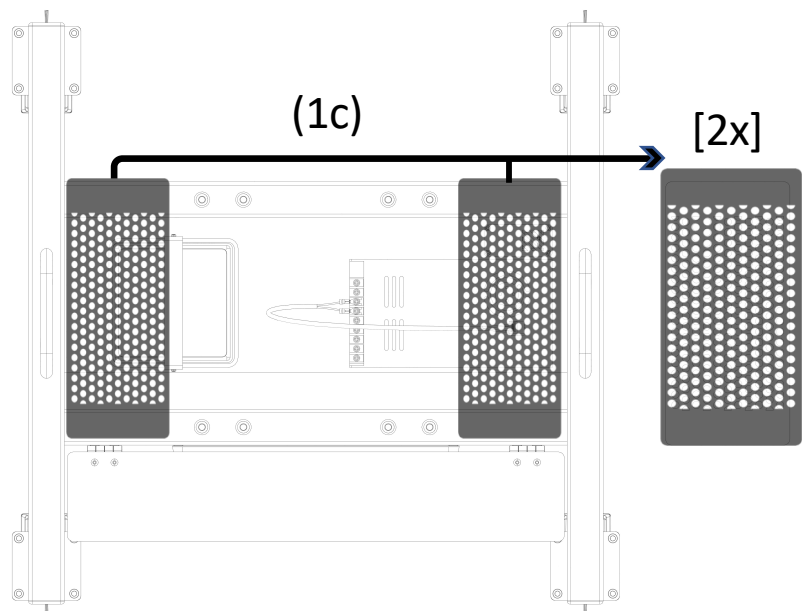
STEP 1: THE BASE

BASE INSTALLATION: Place the BASE on the floor 8' away from the desired target location with the power strip facing back (1a). Level the BASE using the ratchet adjustment integrated into each of the four casters (1b).



Pro tip: to utilize the caster ratchet, pull on the keyring to slide out the ratchet arm, then select the direction to extend the rubber foot to the ground.

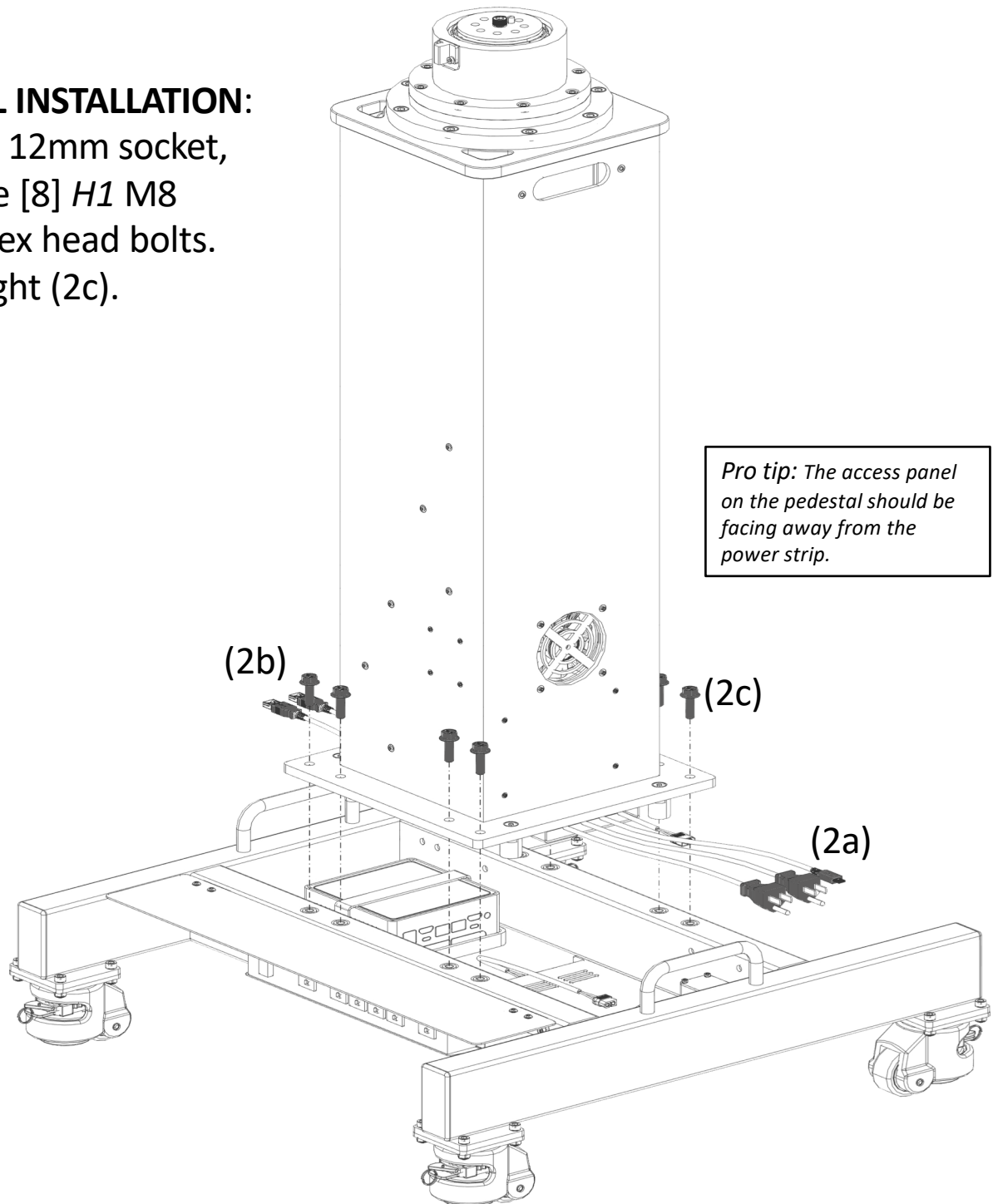
BASE PREPARATION:
Remove the two magnetic PERFORATED PANELS to allow access to electronics and wiring (1c).



STEP 2: THE PEDESTAL

PEDESTAL PREPARATION: Facing the front of the machine (power strip in the back) ensure the power cables (2a) are laid to the left and the USB cables are laid to the right (2b). Place the PEDESTAL centered on the BASE aligning the mounting holes checking that no wires are pinched.

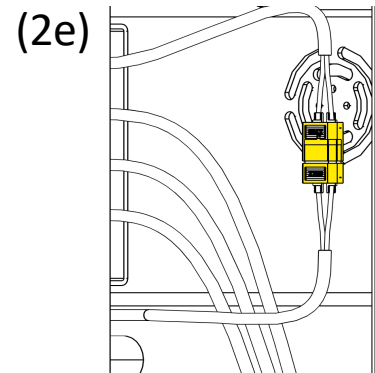
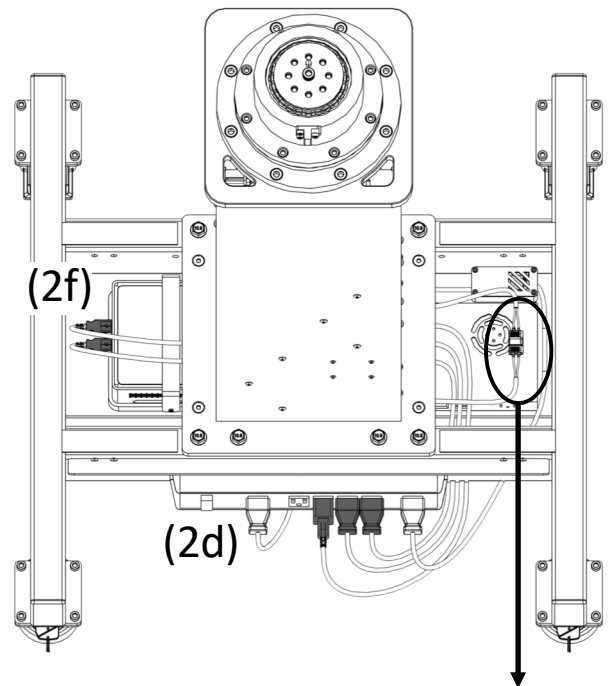
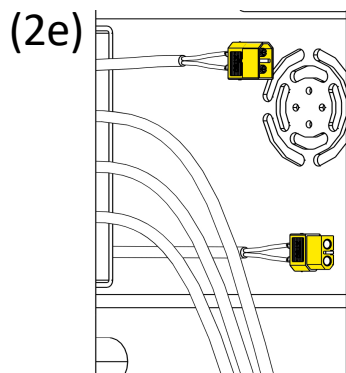
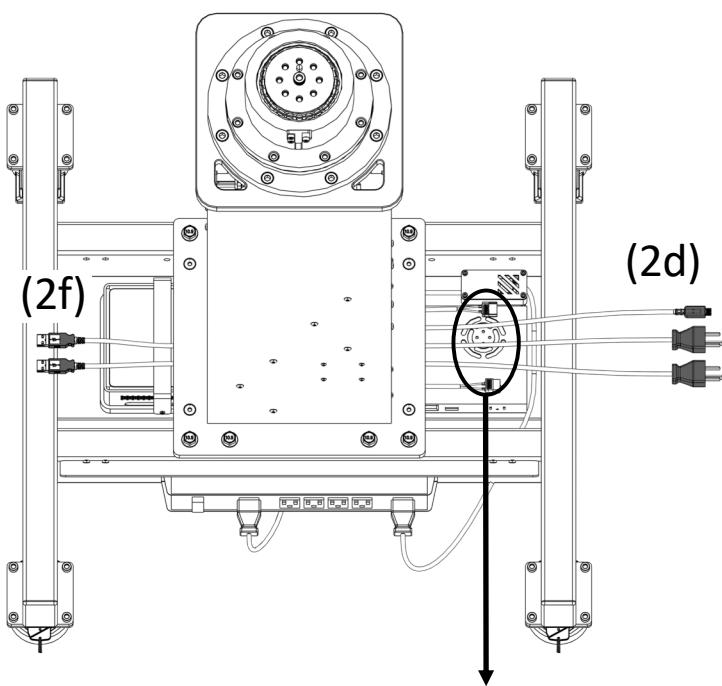
PEDESTAL INSTALLATION:
Using the 12mm socket, attach the [8] *H1* M8 flanged hex head bolts. Torque tight (2c).



STEP 2: THE PEDESTAL CONT.

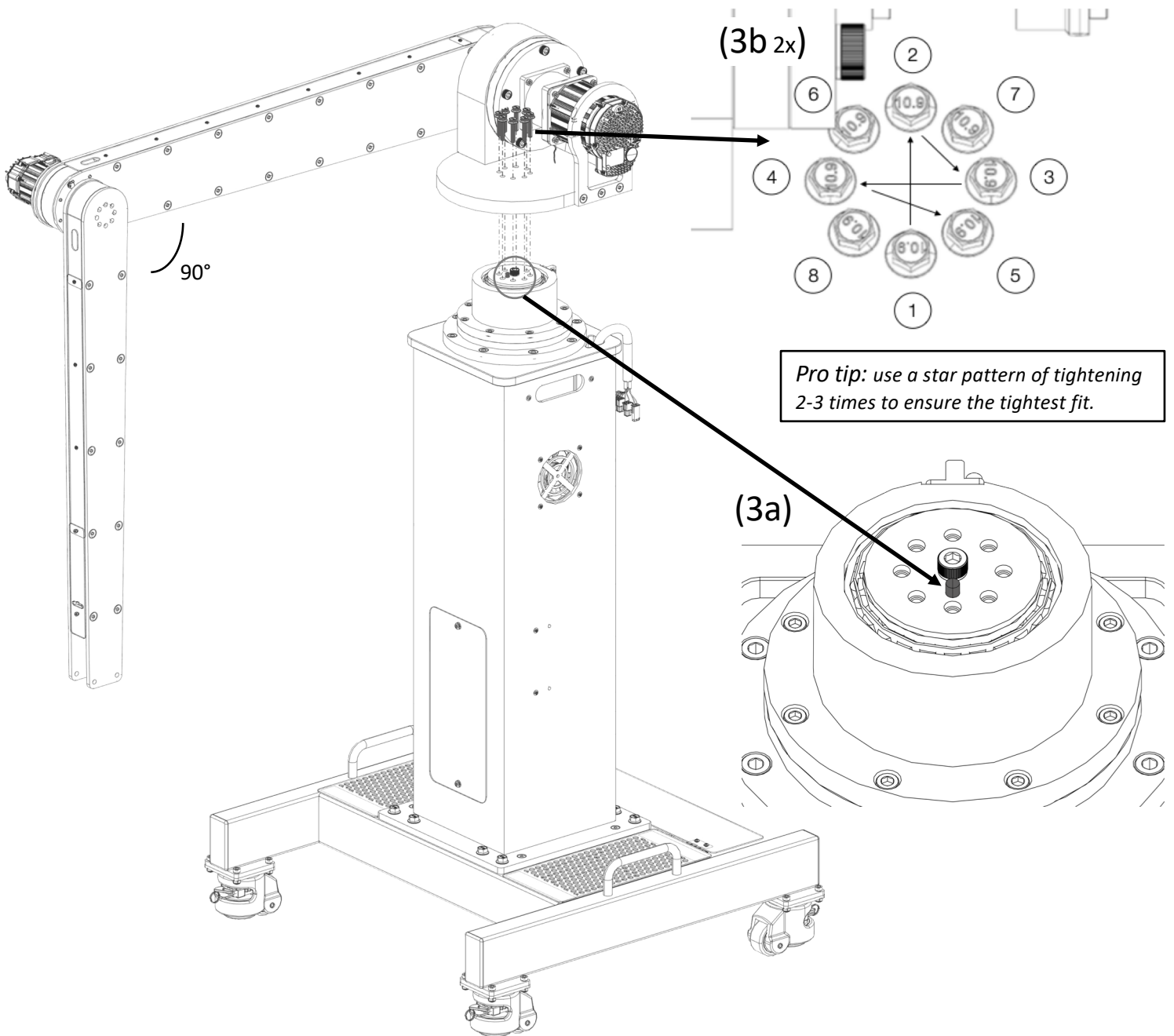
PEDESTAL WIRING: Route the [2] black NEMA plugs + [1] USB-C cable under the frame and plug into the power strip at the rear of the BASE (2d). Plug the *yellow* power connector into the mating pigtail from the nested power supply (2e). Finally, plug the [2] USB-A cables into the mini-PC (2f).

Pro tip: Route wires under the base for the cleanest look



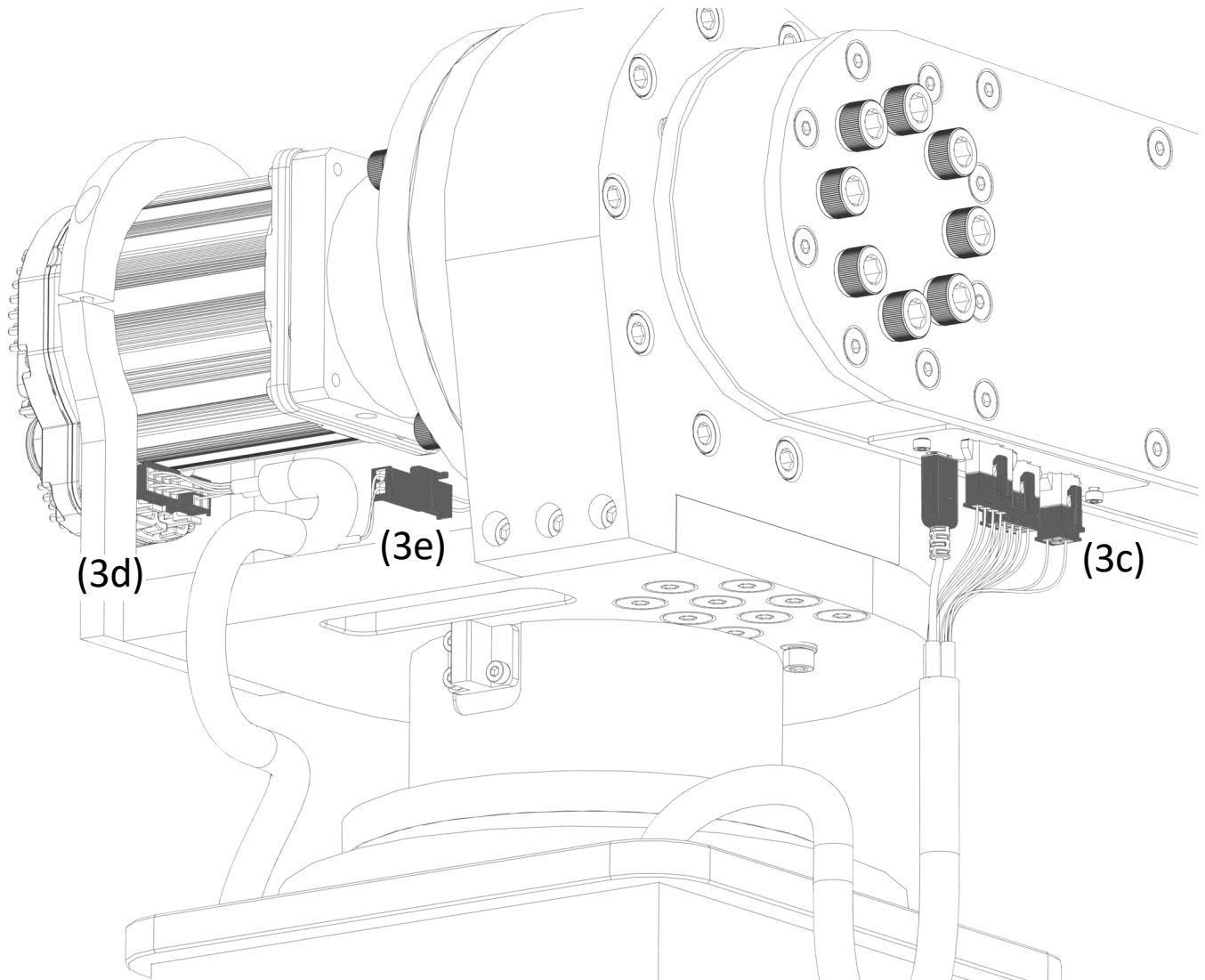
STEP 3: THE SHOULDER

SHOULDER INSTALLATION: Extend the elbow joint out from the stowed 160° to 90°. With the ARM directed straight ahead to the front, align the dowel pin (3a), and set on the PEDESTAL. Attach using the [8] H2 M6 flanged hex head bolts (3b). Torque tight in a star pattern.



STEP 3: THE SHOULDER CONT

SHOULDER WIRING: Looking from the rear, begin with the right-side harness. Plug in the [4] connectors into the panel on the bottom side of the ARM (3c). Then, attach the left-side harness by plugging in the [2] connectors of the lift motor into the lift motor (3d). Plug in the power connector into the brake (3e).



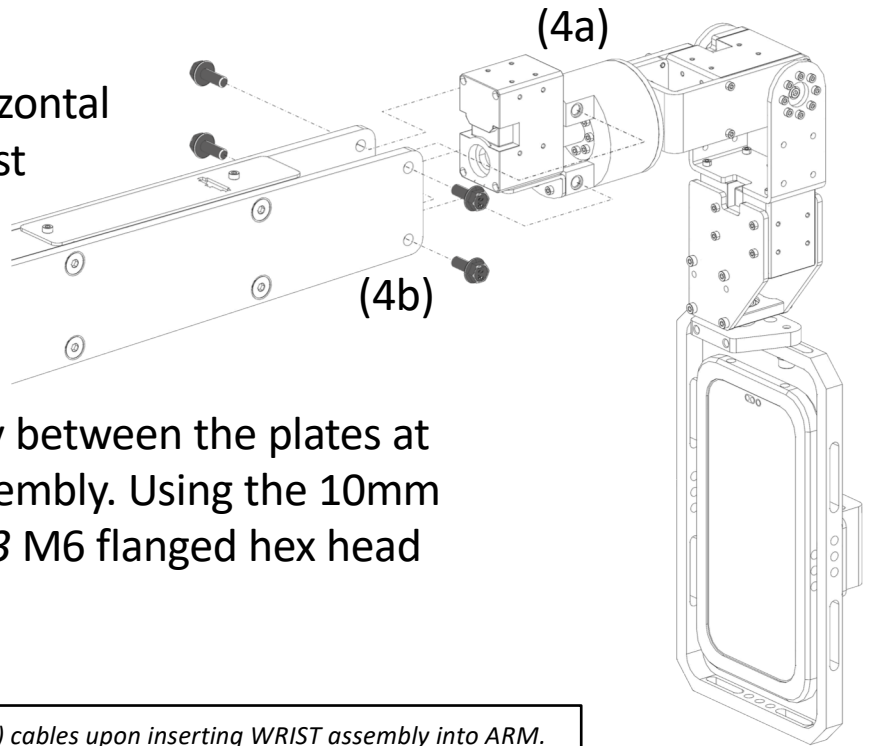
Pro tip: guide the lift motor connection (3d) by using one hand from underneath the motor on the left side.

STEP 4: THE WRIST

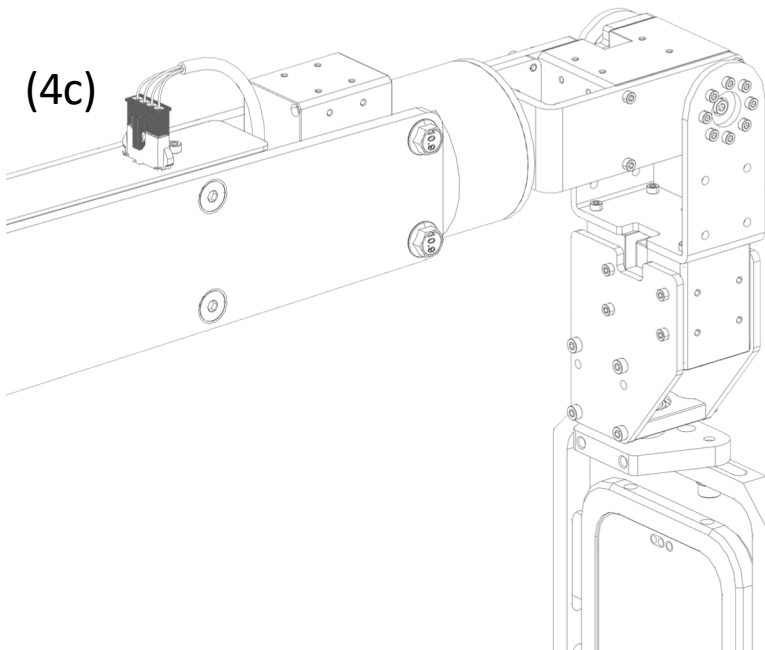
WRIST INSTALLATION:

Extend ARM to the horizontal position. Orient the wrist assembly such that the nesting motor protrudes up out the top of the arm (4a).

Slide the wrist assembly between the plates at the end of the ARM assembly. Using the 10mm socket, attach the [4] H3 M6 flanged hex head bolts (4b). Torque tight.



Note: take care not to pinch (2) cables upon inserting WRIST assembly into ARM.



WRIST WIRING: Plug in the free cable to the panel on the top side of the ARM (4c). If holding the ARM, gently let the arm fall to hang vertically.

CAMERA: Place iPhone or camera of choice (3lb or less) into the wrist mount and secure tightly.

Pro tip: for best video quality, iPhone 15 Pro Max is recommended

GLAMBOT®: INITIALIZATION INSTRUCTIONS

Guide to turning on and running your Glambot®



Estimated time: 10min



US NEMA 110V/60Hz 6 amps

International customers will need a converter



SPACE REQUIREMENTS

A minimum space requirement of 12' wide x 12' long x 10' high is required.



SURFACE REQUIREMENTS

A solid and level surface is required.

Get a step-by-step video tutorial on turning on your Glambot®.



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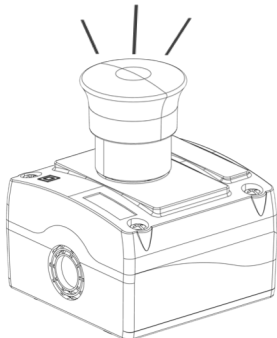
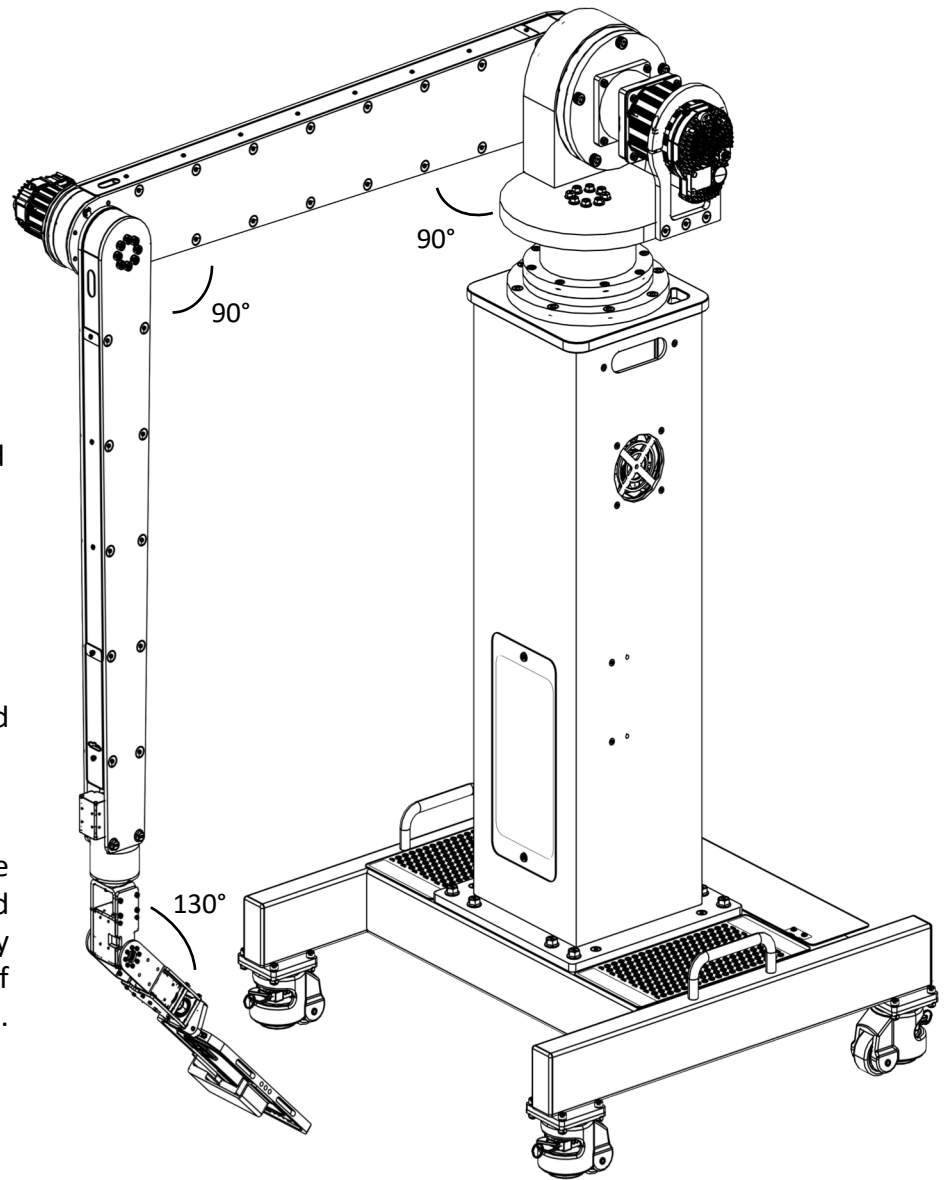
**DO NOT TURN ON THE GLAMBOT® BEFORE
PERFORMING THE PRE-LAUNCH CHECK**

Remove any tools and equipment from the envelope of the robot before next step!

STEP 1: PRE-LAUNCH CHECK

PRE-COMMISSIONING CHECKS: once you have completed assembly of the GLAMBOT® you can proceed to commissioning the system and capturing videos. Before the initial, and any subsequent starts, make sure to check the following:

- The Glambot® is located securely on a sturdy surface and can remain stable during operation.
- Arm is at 90° and wrist is slightly angled back (aprox 130°) with the bottom of the mount resting on the ground.
- All bolts on the BASE, SHOULDER and WRIST are securely tightened.
- All cables are intact, connected to appropriate connectors and properly secured.
- The emergency stop button is located where the operator can reach it at all times.
- There are no obstacles within the envelope of the Glambot® that could prevent the arm from moving freely or operating properly. All risks of collision identified and eliminated.



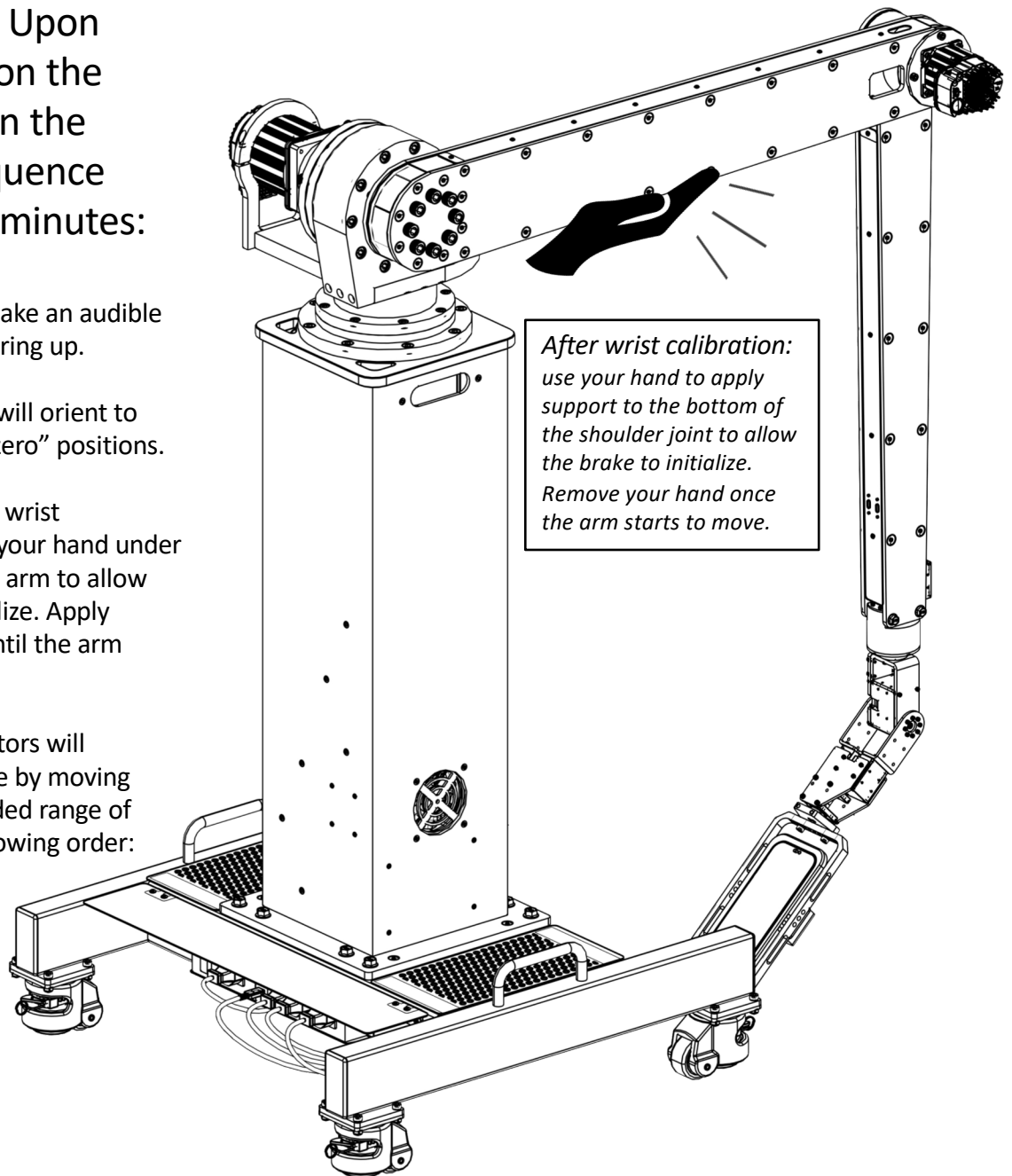
Emergency Stop: an emergency stop is wired directly into the power cord. Keep the E-stop accessible at all times. Press down on the button to cut power to the unit. Lift up on the button to restore power.

STEP 2: POWERING UP

POWER UP: Plug Glambot® into an appropriate outlet and turn the switch on the power strip to on. Glambot® will begin the boot sequence which lasts 30-60 seconds.

CALIBRATION: Upon boot completion the robot will begin the calibration sequence which last 3-5 minutes:

- 1) The motors will make an audible sound upon powering up.
- 2) The wrist motors will orient to their respective “zero” positions.
- 3) Immediately after wrist calibration, place your hand under the 1st joint of the arm to allow the brake to initialize. Apply gentle pressure until the arm starts to move.
- 4) Remaining [3] motors will physically calibrate by moving through an extended range of motion in the following order: ELBOW, LIFT, PAN.



STEP 3: CONNECTING THE WEB APP

WEBAPP CONNECTION: Approximately 2 minutes after calibration the Bluetooth and Wi-Fi networks will be established. Follow these steps:

- 1) Connect a separate laptop, tablet or phone to the Glambot™ local network. Use the below login and replace the “xxxx” with your model number Located on the base of the unit.

Wi-Fi network: glambot-xxxx Password: Glambot1!

- 2) Open the webapp by navigating to a browser and enter:
<http://glambot-xxxx.local:8080/webapp>

The screenshot displays the Glambot WebApp interface. At the top left, the title "Glambot WebApp" is shown. Below it, the "Path" section contains a grid of 12 buttons: Full Sweep L (L-R|h-l), Full Sweep R (R-L|l-h), Straight Push (Cm|B-F), Straight Pull (Cm|F-B), 3/4 Sweep L (L-R|h-l), 3/4 Sweep R (R-L|m-h), Center Push (C|h-m), Center Pull (C|m-h), Sweep Push (L-C|h-m), Sweep Pull (C-L|m-h), Reveal (C|l-h), and Close Down (C|h-l). The "Move to position" section has three orange buttons: Home, Extended, and Wake. The "Camera" section has one orange button: Wake. The "Speed" section has four buttons: Crawl, Walk, Run, and Send It. The "Wait duration" section has three buttons: 3s, 5s, and 10s. On the right side, there is a large green "Start" button at the top and a large red "STOP" button below it.

STEP 4a: iPhone FILMING (using Snappic)

CONNECTING BLUETOOTH: Connect the iPhone on the wrist to the Glambot® Bluetooth. Ensure no other devices are connected to the Glambot® Bluetooth.

NOTE: For instant sharing, ensure the iPhone is connected to a cellular or wifi network and not connected to the Glambot local network.

CONNECTING SNAPPIC: Open the Snappic app on the iPhone. Next:

- 1) Open the event profile > Select Accessories > Volume Buttons > Done
- 2) Configure Camera > Back Ultra Wide Camera > Done
- 3) Start Photo Booth
- 4) Focus > Smooth Focus ON > Burst Focus Lock OFF
- 5) Stabilization > Standard
- 6) Start Photo Booth

NOTE: These settings are suggested but should be changed based on your shooting environment and if a lens is being used.

FILMING:

- 1) Place Snappic on the “Tap to Start” ready screen.
- 2) Using the Glambot® webapp, select the desired speed and delay (‘CRAWL’ and ‘3 SEC’ recommended).
- 3) To run, select the desired path button, then tap ‘START’. If the Bluetooth pairing was successful, filming will start once the path begins.
- 4) To run a subsequent path, select the ‘WAKE’ button once to exit the video preview, then select the ‘WAKE’ button a second time to enter the “Tap to Start” screen.

NOTE: The webapp will grey out everything except the ‘STOP’ button and the robot will move to the path start position, pause for the selected delay, then execute the path while recording a video. Upon completion the webapp will become available again and the Snappic app will process the video and begin playing the preview.

STEP 4b: WIRED GoPro FILMING (using Snappic)

CREATING A WIRED CONNECTION:

- 1) Download the GoPro Quick app onto your Snappic iPhone or other device.
 - a) Drag down the GoPro screen > Preferences > Connections > GoPro Quick App
- 2) On the Snappic device, open the GoPro Quick App.
 - a) Bring both devices close to each other > Allow connection to both devices through Bluetooth

To confirm a successful connection, GoPro Quick App on iPhone should: show GoPro camera battery percentage and/or show access to previous Glambot® video gallery

- 3) If not already done, attach the GoPro to the wrist end-effector.
- 4) Connect a 1.5'-2' USB-C cord to the Glambot® wrist-side USB-C data port > Connect the other end of the 1.5'-2' USB-C cord to the GoPro
- 5) Connect a 5'-6' USB-C cord to Glambot® shoulder-side USB-C port on the main plug board > Connect the other end of the USB-C cord to the Snappic device.

To confirm successful connection, GoPro should appear with: "USB Connected" message

CONNECTING BLUETOOTH:

- 1) Connect the iPhone or other device running Snappic to the Glambot® Bluetooth. Ensure no other devices are connected to the Glambot® Bluetooth.

NOTE: For instant sharing, ensure the iPhone is connected to a cellular or wifi network and not connected to the Glambot® local network.

CONNECTING SNAPPIC:

- 1) Open Snappic on you device > Click on your event event profile
- 2) Select Accessories > Volume Buttons
- 3) b. Configure Camera > GoPro Camera (should say "WIRED")

STEP 4b: WIRED GoPro FILMING (CONTINUED)

FILMING:

- 1) Place Snappic on the “Tap to Start” ready screen.
- 2) Using the Glambot® webapp, select the desired speed and delay (‘CRAWL’ and ‘3 SEC’ recommended).
- 3) To run, select the desired path button, then tap ‘START’. If the wired pairing was successful, filming will start once the path begins.
- 4) To run a subsequent path, select the ‘WAKE’ button once to exit the video preview, then select the ‘WAKE’ button a second time to enter the “Tap to Start” screen.

NOTE: The webapp will grey out everything except the ‘STOP’ button and the robot will move to the path start position, pause for the selected delay, then execute the path while recording a video. Upon completion the webapp will become available again and the Snappic app will process the video and begin playing the preview.

RECOMMENDED SETTINGS:

- 1) Drag down screen on GoPro and swipe right to show default settings:
 - a) Video Mode: Highest
 - b) Controls: Pro
- 2) GoPro camera’s main screen should show default settings:
 - a) 4X, L, Stabilization: On
 - b) Standard: 1080/120/L
- 3) Open Snappic on iPhone or other device:
 - a) Select “Video” and confirm settings are:
 - i. Preset: Standard
 - ii. Resolution: 1080
 - iii. Framerate: 120 fps
 - iv. ISO Min & Max: Auto
 - v. Color Profile: Natural
 - vi. Sharpness: Medium *let’s also try high and compare*
 - vii. Max Lens Mode: OFF
 - viii. Digital Lens: Linear/Max Super view
 - ix. Anti Flicker: 60Hz
 - x. Bitrate: high
 - b) Select “Slowmo” tab and confirm settings above are the same

NOTE: Please refer to the Snappic website for additional help and best practices.

POWERING OFF and DISASSEMBLY

POWERING OFF: Using the Glambot® webapp, command the arm to the 'EXTENDED' position. Flip the switch on the power strip to OFF or unplug from the wall. The motors will disengage and the ELBOW will relax to the vertical position.

DISASSEMBLY: The order for disassembly is opposite of assembly, starting with removing the WRIST assembly, then the ARM assembly, and finally the PEDISTAL. **When disassembling any joint first disconnect the wire connections**, then remove any fasteners. Store fasteners in orderly manner and take care not to pinch any wires during storage of the arm components.