

Gracie Laser Assembly Manual



Safety Precautions

CAUTION: Use of controls, adjustments, or performance of procedures other than given in the User Manual might result in hazardous laser light exposure.

This product is safe to use in normal operations as described in these instructions. **AVOID DIRECT EYE EXPOSURE. DO NOT LOOK DIRECTLY INTO THE LASER EMITTER.**



Specifications

Power: Class II

Wavelength: 650nm

Output Power: 1mW

Battery Type: 2 AA

Battery Life: 150 continuous hours

Weight: 31.2g without batteries

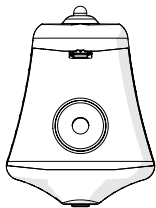
Dimensions: 6.929" : x 1.533" W

Color: Blue

The Grace Company certifies that the Gracie Laser complies with the government FDA regulation 21CFR 1040.10 and 1040.11.

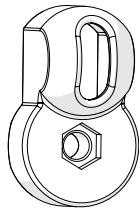
Included Parts & Tools

Laser Pointer



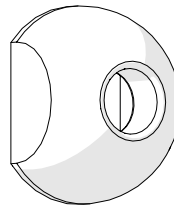
ACC-09-14945

Mount



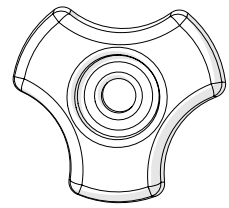
PLA-05-12394

Ball Swivel



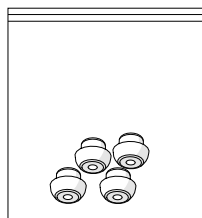
PLA-05-12395

M6 Knob



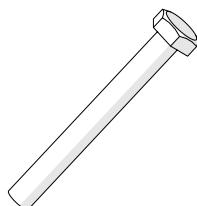
PLA-05-10320

Laser Tip Bag
(2.5, 2, 1.4, & .25 mm)



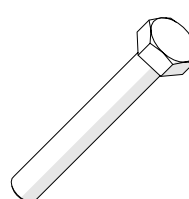
PLA-09-10513

Hex Bolt M6 x 60 mm



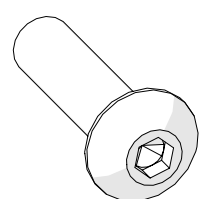
HDW-03-12405

Hex Bolt M6 x 45 mm



HDW-03-12404

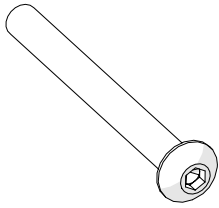
SBHCS M5 x 16 mm



HDW-03-10857

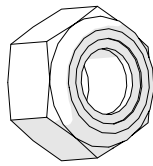
Included Parts & Tools (continued)

SBHCS M4 x 40 mm



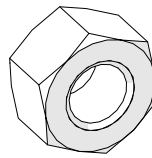
HDW-03-14893

M6 Nylon Nut



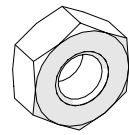
HDW-03-10740

M5 Hex Nut



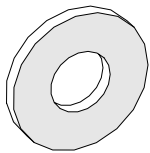
HDW-03-15885

M4 Hex Nut



HDW-03-10062

M4 Washer



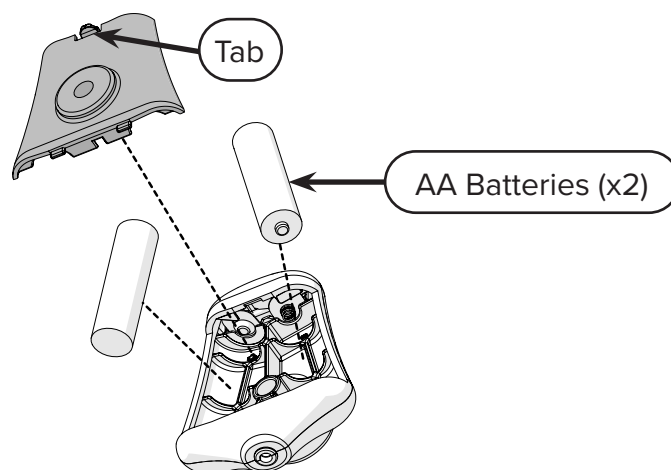
HDW-03-12017

Task 1: Installing the Batteries

The Gracie Laser runs on 2 AA batteries (not included).

To install the batteries:

- 1 Press down on the **tab** on the cover to remove it from the battery compartment.



- 2 Insert the **batteries** with the positive poles in the orientation marked in the compartment.
- 3 Reattach the cover.

Task 2: Picking a Laser Tip

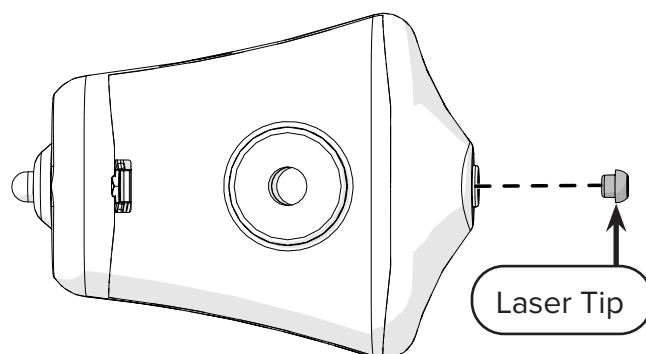
The Gracie Laser comes with four optional laser tips, which change the thickness of the laser beam. You might find that a larger laser beam makes it easier to follow a pantograph, while a smaller laser beam might be more helpful when you're pinpointing the exact spot your needle will poke the fabric.

Note: The laser tips are optional accessories, so if you find that the laser does what you want it to do without them, feel free to leave the tips off.

Take the following steps to install a laser tip:

- 1 Pick the **laser tip** by comparing the sizes of the holes. The smaller the hole, the tighter the laser beam will be.
- 2 Line up the small side of the laser tip with the laser emitter hole.

CAUTION: DO NOT turn on the laser while you are switching the laser tips! Looking directly into the active laser emitter can hurt your eyes!



- 3 Push on the tip until it slots into the hole. The tips are hard plastic, so they can withstand any pressure placed on them as you push them in.

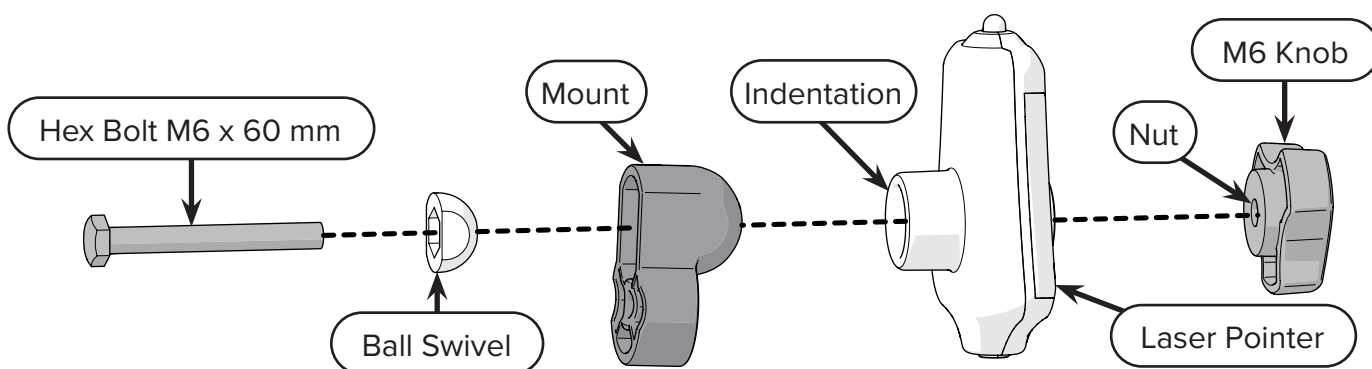
Tip: Once the tip is mostly in the hole, turn the laser pointer so the tip is pointing down, and then press it against something inflexible, like a table, to finish slotting the tip in place.

Task 3: Assembling the Laser

Before you put the laser on your frame, assemble the laser.

To assemble the laser:

- 1 Insert the **M6 x 60 mm hex bolt** through the **ball swivel**, and then nest the ball swivel in the wide hole in the **mount**.
- 2 Next, insert the bolt through the **laser pointer** (make sure the mount can nest in the **indentation** in the laser pointer).
- 3 Finally, put the **M6 knob** on the bolt and tighten (make sure the **nut** faces the laser pointer).



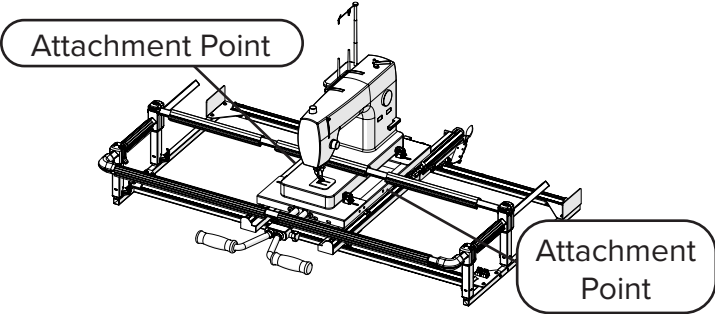
Task 4: Attaching the Laser to Your Frame

Note: From the sections below, locate your frame, and then follow the steps.

Cutie Frame

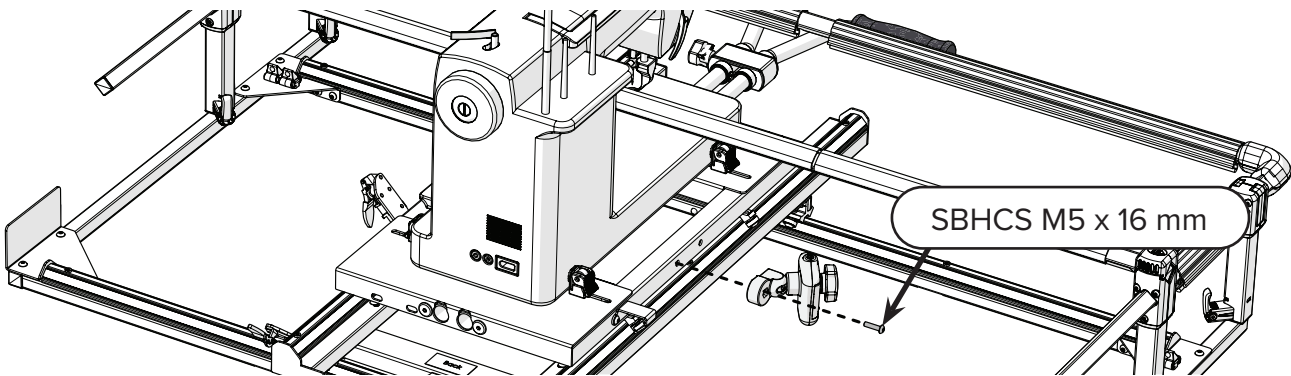
Parts & Tools Needed:

- SBHCS M5 x 16 mm
- 3 mm Allen wrench (not included)



To attach the assembled laser to the Cutie frame:

- 1 Pick either the left or right side of the top plate to put the laser on, and then pick which of the two holes near the middle that you want to use. The process is the same for all options.
- 2 Insert the **M5 x 16 mm SBHCS** into the attachment hole on the laser, and then use the 3 mm Allen wrench to screw the laser onto the top plate. **Tip:** Swivel the main part of the laser away from the hole to clear the way for the screw.



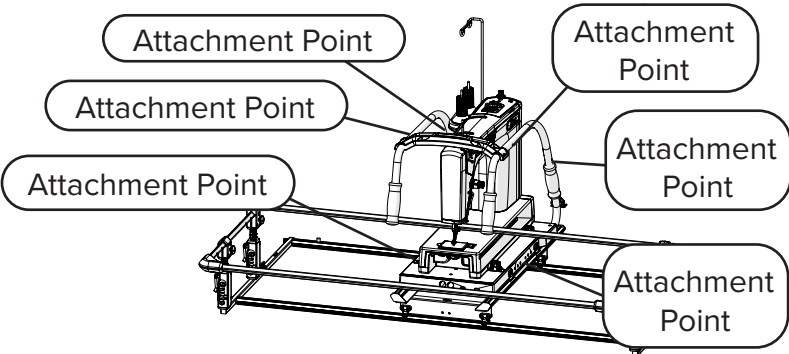
Cutie Breeze Frame

You can attach the laser to the side of the top plate or the handles on the Cutie Breeze.

Side of Top Plate

Parts & Tools Needed:

- SBHCS M5 x 16 mm
- Hex Nut M5
- Needle-nose pliers (not included)
- 3 mm Allen wrench (not included)

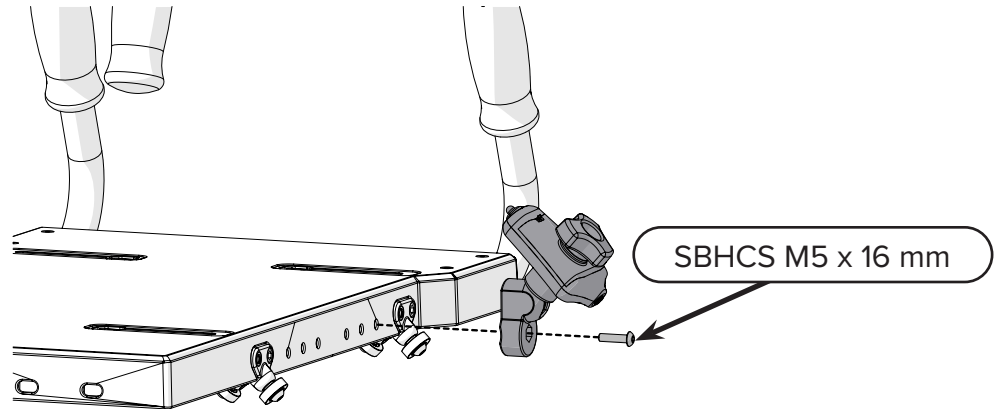


To attach the assembled laser to the side of the Cutie Breeze top plate:

- 1 Pick either the left or right side of the top plate to put the laser on, and pick which of the six holes on that side you want to use. The process is the same for all options.

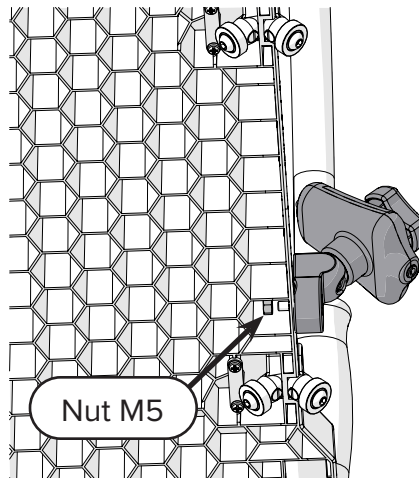
Task 4: Attaching the Laser to Your Frame (continued)

- 2 Insert the **M5 x 16 mm SBHCS** into the attachment hole on the laser, and then put the screw into the hole. **Tip:** Swivel the main part of the laser away from the hole to clear the way for the screw. **Tip:** Use the 3 mm Allen wrench to hold the screw in place for now.



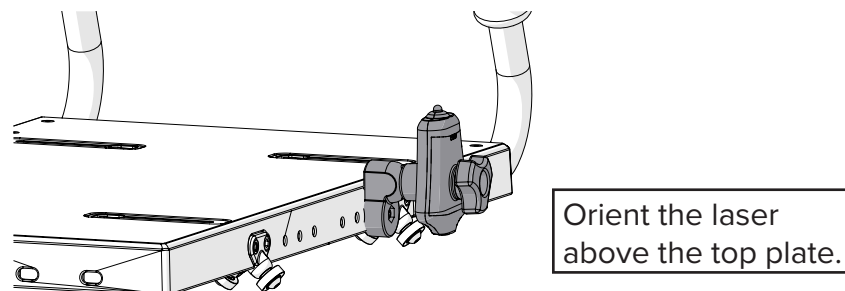
- 3 Use your hand to hold the **M5 nut** in place behind the hole in the top plate.

Note: Don't orient the carriage this way; this just shows what is going on beneath the carriage.



- 4 Start attaching the nut to the screw with the Allen wrench and your hand.
- 5 Once the nut catches, use the needle-nose pliers to hold the nut while you finish tightening the screw completely.

Note: Make sure to orient the laser so that when you're finished installing it, the laser is mostly above, not below, the top plate, as shown below.



Task 4: Attaching the Laser to Your Frame (continued)

Handles

Parts & Tools Needed:

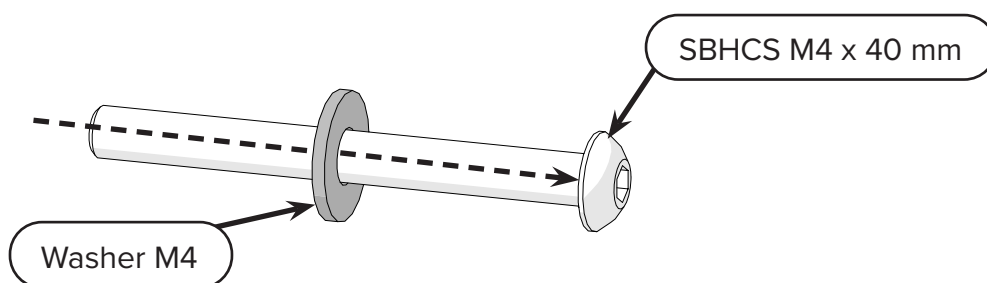
- SBHCS M4 x 40 mm
- Hex Nut M4
- Washer M4
- Needle-nose pliers (not included)
- 2.5 mm Allen wrench (not included)

To attach the assembled laser to a handle on the Cutie Breeze:

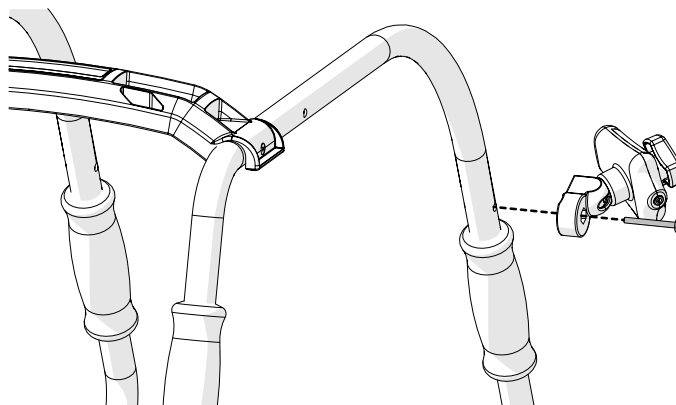
- 1 Pick which handle to put the laser on, and pick which hole to use (either near the front or near the back). The process is the same for all options.

Note: If you are using Quilter's Creative Touch (QCT) with the Cutie Breeze, then you might not have the option to use one of the holes in the front of the handles, as you must use one of those holes to attach the tablet for QCT to the frame. See the QCT manual for more information about attaching the tablet.

- 2 Slide the **M4 washer** onto the **M4 x 40 mm SBHCS**.

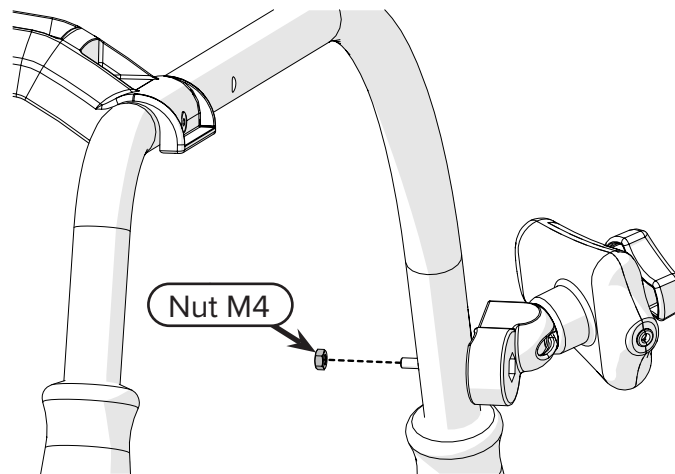


- 3 Insert the screw into the attachment hole on the laser, and then put the screw into the hole. **Tip:** Swivel the main part of the laser away from the hole to clear the way for the screw.

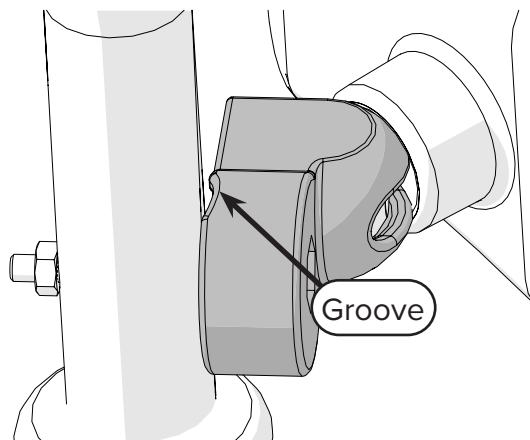


Task 4: Attaching the Laser to Your Frame (continued)

- 4 Use the needle-nose pliers to hold the **M4 nut** on the other side of the hole in the handle, and then press the nut toward the screw so it catches on it.



- 5 Use the 2.5 mm Allen wrench to tighten the screw into the nut. **Tip:** Once the laser is almost touching the handle, double-check that the **groove** in the attachment hole is lined up with the handle, and then fully tighten.



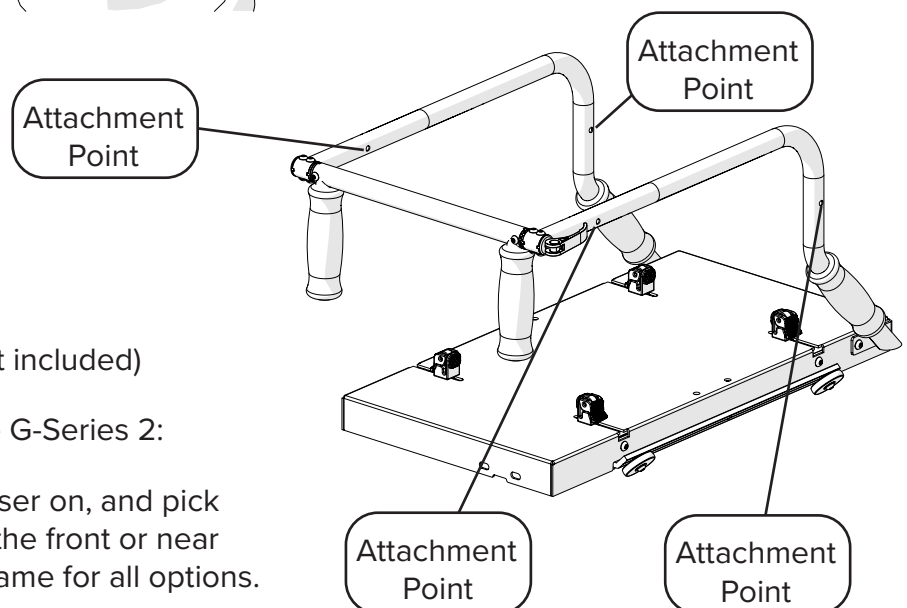
G-Series 2

Parts & Tools Needed:

- Hex Bolt M6 x 45 mm
- Nylon Nut M6
- Open-end wrench 10 mm (not included)

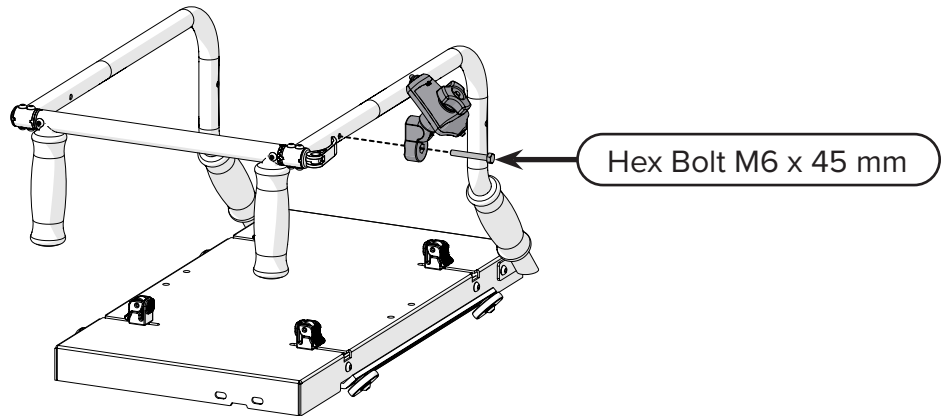
To attach the assembled laser to the G-Series 2:

- 1 Pick which handle to put the laser on, and pick which hole to use (either near the front or near the back). The process is the same for all options.

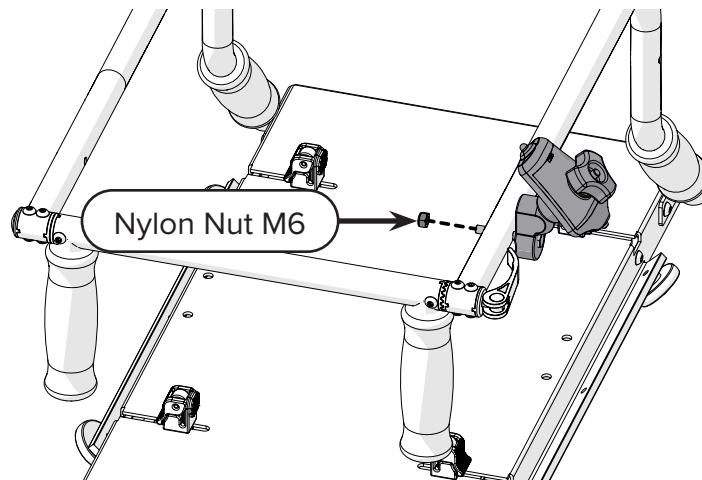


Task 4: Attaching the Laser to Your Frame (continued)

- 2 Insert the **M6 x 45 mm hex bolt** into the attachment hole on the laser, and then put the bolt into the hole. **Tip:** Swivel the main part of the laser away from the hole to clear the way for the bolt.



- 3 Use your hand to start to screw the **M6 nylon nut** onto the bolt on the other side of the hole, and get it to catch on the bolt.



- 4 Once the nut has caught on the bolt, use the 10 mm open-end wrench to tighten the nut onto the bolt. **Tip:** Once the laser is almost touching the handle, double-check that the **groove** in the attachment hole is lined up with the handle, and then fully tighten.

