

Introduction

This document describes how to install StableTrac successfully to your Furio Dolly system.

The retrofit process requires **two people** at minimum, and takes approximately **2 hours** per dolly.

CAUTION: Ensure the Dolly is **OFF** before starting the retrofit process.

IMPORTANT: StableTrac is not suitable for VR1 dollies.

Retrofit Kit Contents

Retrofit Kit **#FRO-DLY-ST-UPG** includes enough materials to retrofit either the **Furio SE or S2** dollies.

The Kit contains the following items:

- StableTrac Arm (5110AR-136-xx)
- Direction Module Assembly (5110AR-138-xx)
- Fixed Direction Shaft (5110AR-541-xx)
- Loctite® adhesive

Required Tools

In addition to the Retrofit Kit contents, the following tools are required:

- 17 mm open-end wrench
- Hexagonal wrench set including:
 - › 2 mm (x1)
 - › 2.5 mm (x1)
 - › 3 mm (x1)
 - › 4 mm (x1)
 - › 5 mm (x2)
 - › 6 mm (x1)
 - › 8 mm (x1)
- Wire cutters
- Grease pencil
- A protective pad to protect the dolly base when it's inverted

Process Summary

This document provides detailed instructions to help you complete the following sections and steps:

1. Disassembling the Dolly
 - › **"Step 1: Removing the Wiredraw Cable"** on **page 2**
 - › **"Step 2: Removing the Robotic Head and Payload"** on **page 3**
 - › **"Step 3: Removing the Robotic Lift Column"** on **page 3**
 - › **"Step 4: Removing the Stability Wheels"** on **page 4**
2. Installing StableTrac Retrofit Kit Components
 - › **"Step 1: Removing the Side Cover Plate"** on **page 6**
 - › **"Step 2: Removing the Main FRU"** on **page 6**
 - › **"Step 3: Removing the Passive Wheels"** on **page 7**

- › “Step 4: Replacing the Passive Wheel Post” on page 8
 - › “Step 5: Inverting the Dolly Base” on page 10
 - › “Step 6: Removing the Drive Wheel Set” on page 11
 - › “Step 7: Replacing the Drive Wheel Post” on page 12
 - › “Step 8: Attaching the Drive Wheel Set to the Motor Unit” on page 14
 - › “Step 9: Replacing the Cable Tie Mounts” on page 15
 - › “Step 10: Attaching the StableTrac Arm” on page 16
 - › “Step 11: Reverting the Dolly Base Upright” on page 17
 - › “Step 12: Attaching the Wheel Units to the Dolly Base” on page 17
 - › “Step 13: Securing StableTrac and the Wheel Sets” on page 18
3. Reassembling the Dolly
- › “Step 1: Reinstalling the Stability Wheels” on page 19
 - › “Step 2: Installing the Main FRU” on page 20
 - › “Step 3: Attaching the Wiredraw Cable” on page 21
 - › “Step 4: Installing the Lift” on page 21
 - › “Step 5: Installing the Robotic Head and Payload” on page 22

Disassembling the Dolly

Before You Begin:

- Move the dolly to a location that allows easy access to the drive wheel side.
- Ensure the dolly is on a straight portion of the track that allows ample space to work.
- Lower the lift completely, turn the dolly off, and disconnect the dolly power cable.
Note: Record the position of each cable as you remove it so you can later restore them to their original positions.
Tip: Don't forget to reconnect the power cable when you are finished servicing the dolly.

Step 1: Removing the Wiredraw Cable

Remove the Wiredraw Cable

1. Move the dolly as close to the wiredraw as possible before detaching the cable.
2. Use a 6 mm hexagonal wrench to remove the bolt that secures the wiredraw cable to the dolly while holding the wiredraw.
Note: Grasp the cable end tightly, but do not wrap it around your hand or bend it.
IMPORTANT: Handle the wiredraw cable with care to avoid permanently damaging the cable and wiredraw unit. NEVER allow the cable to snap back into the wiredraw unit. If you release the cable and it snaps back into the wiredraw unit, the unit may be irreparably damaged.
3. Hold the cable close to the floor and parallel to the track to avoid rubbing of the steel cable against the wiredraw enclosure box, protecting the cable from damage.
4. Slowly walk the cable back to the wiredraw unit. Do not allow it to snag or rub against anything, except the part of the rail it normally contacts (curved tracks only).

Step 2: Removing the Robotic Head and Payload

Remove the Payload

1. Disconnect all cables from the payload and the robotic head, noting the position of each cable as you remove it so you can later restore them to their original positions.
2. Use the grease pencil to mark the position of the payload on the camera cradle (refer to **Figure 1**), and then remove the payload. Marking the payload position enables you to return it to its exact original position, which is especially important if it is part of a Virtual Studio / Augmented Reality (VS/AR) solution.

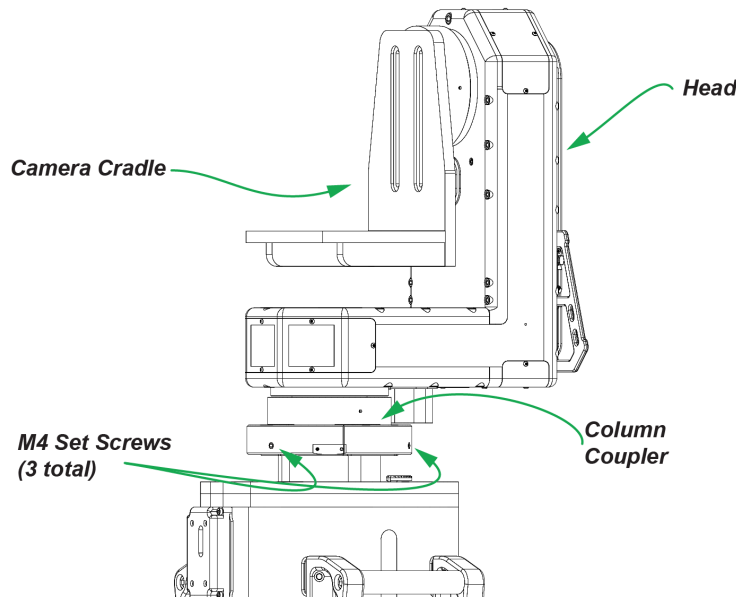


Figure 1 - Robotic Head

Remove the Robotic Head

1. Use the grease pencil to mark where the head/column coupler meets the top of the lift column so you can later realign them.
2. While another person holds the head steady, use the 4 mm hexagonal wrench to loosen the three M4 set screws along the edge of the head/column coupler, until the head is loose enough to remove from the lift column. Refer to **Figure 1** above.
3. Remove the head by lifting it straight up.

Step 3: Removing the Robotic Lift Column

Remove the Lift Column

1. **For a Robotic Lift Column:** Using the 8 mm hexagonal wrench, remove the four M10 base plate bolts that fasten the lift to the dolly base, as shown in **Figure 2**.
2. **For a Fixed Column:** Using the 6 mm hexagonal wrench for the fixed column, remove the M10 Flat Head base plate bolts.
3. Using the handles, lift the robotic lift column straight up until all of it is above the dolly, and then move the lift column aside and lay it down gently on its side.

CAUTION: The lift column is heavy. Get help when handling heavy items.

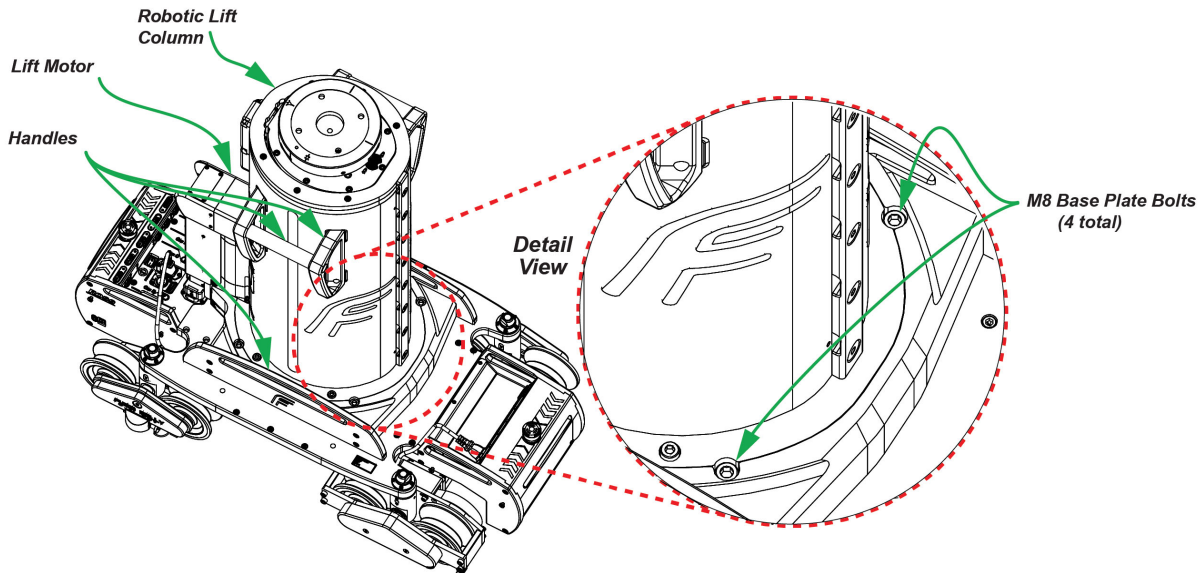


Figure 2 - M10 Base Plate Bolts Connecting the Lift to the Dolly

Step 4: Removing the Stability Wheels

Removing the Stability Wheels

There are two sliding passive wheel sets on the dolly, each containing stability wheels, which ensure the wheels are securely fixed to the track. Refer to **Figure 3**.

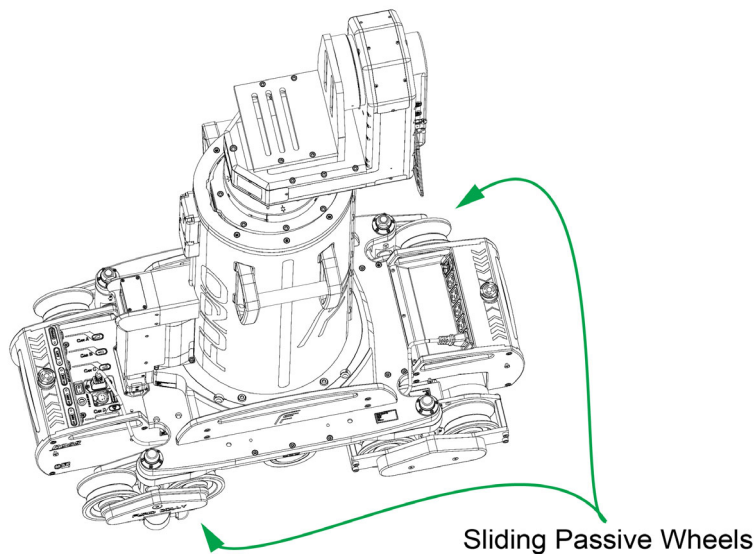


Figure 3 - Sliding Passive Wheels with Stability Wheels

Removing these wheels allows the dolly to be lifted from the track.

Remove the Stability Wheels

For the two sliding passive wheel sets, complete the following:

1. Locate the stability wheel.
2. Remove the locking pin by pressing and holding the pin lock button while sliding the locking pin out. Refer to **Figure 4**.

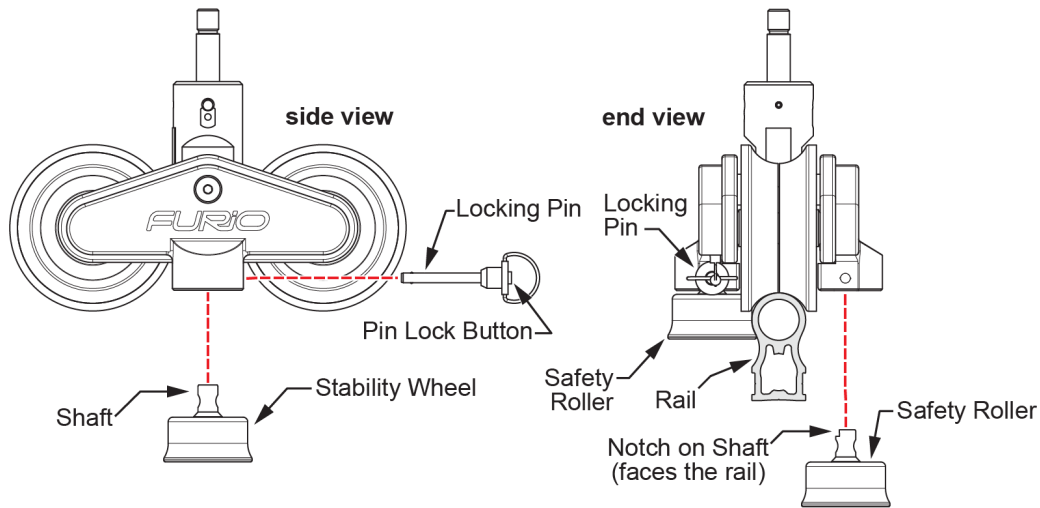


Figure 4 - Removing Stability Wheels

Installing StableTrac Retrofit Kit Components

Step 1: Removing the Side Cover Plate

Remove the Side Cover Plate

1. Locate the side cover plate on the same side as the drive wheel.
2. Using a 5 mm hexagonal wrench, remove the three screws securing the side cover plate as shown in **Figure 5**.
IMPORTANT: Removing the base plate requires breaking the Loctite® seal. New Loctite® adhesive is provided in the Retrofit Kit.
3. Remove the side cover plate and store it nearby for reassembly.

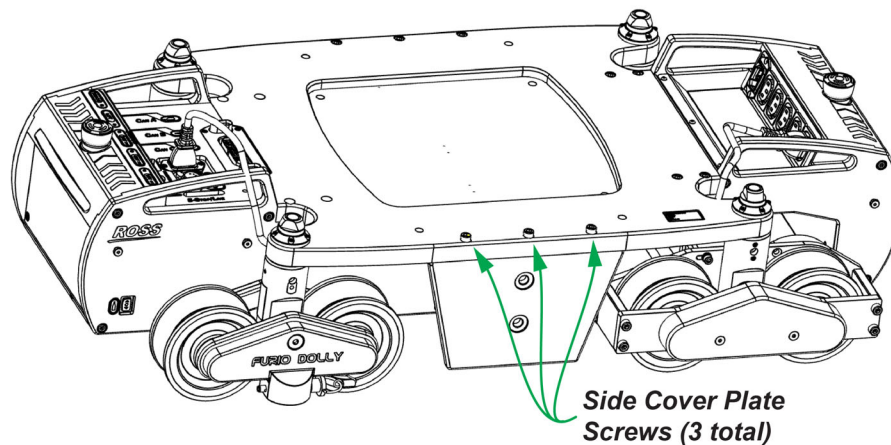


Figure 5 - Dolly Base Side Cover Plate

Step 2: Removing the Main FRU

Remove the Main Field Replaceable Unit (FRU)

1. Disconnect all cables from the Main FRU.
Tip: Ensure that each cable is labeled, so they're easy to reconnect later.
2. Use a 5 mm hexagonal wrench to remove the four screws that secure the Main FRU to the dolly.
Note: **Figure 6** shows the four mounting screws.

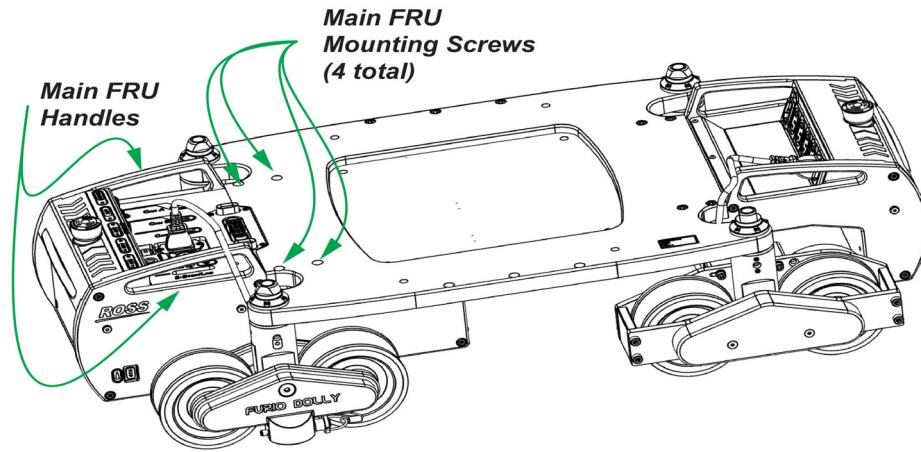


Figure 6 - Furio SE Dolly, Showing Four Mounting Screws that Secure the Main FRU

3. Grasp the handles on the Main FRU, and then slowly slide it out from the body of the dolly.

Tip: The Main FRU has two runners that ride on guide rails within the body of the dolly. Be prepared to catch the Main FRU as it disengages from the body of the dolly.

Step 3: Removing the Passive Wheels

Remove the Passive Wheels

1. Use a 17 mm open-end wrench to remove the nut above the passive wheel set (see **Figure 7**) on the same side as the drive wheel set.

Tip: If the nut spins without coming off, insert a narrow tool into the **locking hole** in the side of the shaft. The tool locks the shaft as you turn the wrench, enabling you to remove the nut.

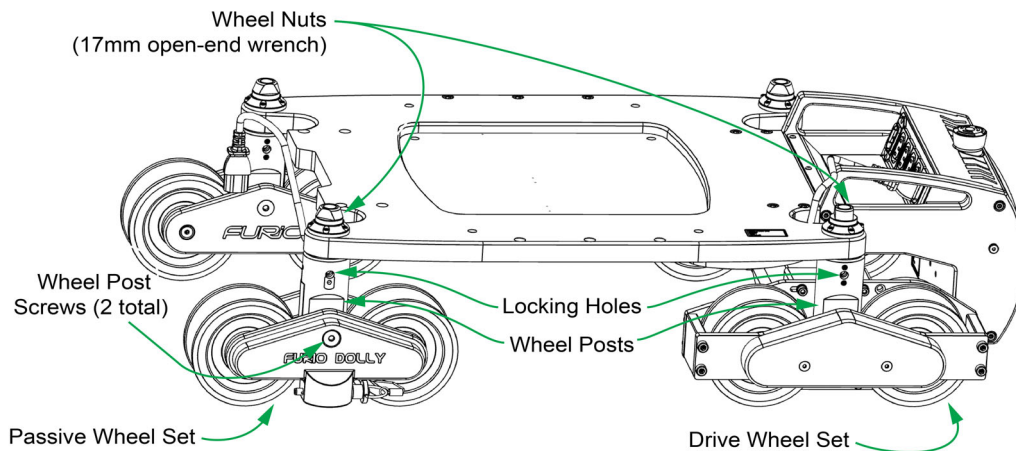


Figure 7 - Removing a Passive Wheel Set

