



8. USING THE FORCE TORQUE SENSOR



8.1 ACTIVE DRIVE TOOLBAR

- Once the software is installed, the ActiveDrive toolbar button will appear after a short delay.



- Tap the ActiveDrive button to expand the ActiveDrive toolbar.



- The ActiveDrive toolbar allows you to move the robot by hand guiding the end effector. For more information on the ActiveDrive feature, refer to the Instruction manual.



8.2 PATH RECORDING

- Use the Path URCap to record a path for the robot to follow.
- In the robot program, go to the **Structure** tab.
- Go to the **URCaps** tab.
- Tap the **Path** button.
- Go to the **Command** tab to record a path.
- More information on how to record a path using the Path URCap can be found in the Instruction manual.



8.3 DASHBOARD

Once the calibration has been performed, force and moment values are streamed directly in the Dashboard of the Sensor URCap interface.

- Go to **Program Robot**.
- Go to the **Installation** tab.
- Tap **FT Sensor**.
- Tap the **Dashboard** button.
- Force and moment values will be displayed in real time.

ORDER INFORMATION

Below are your product codes and serial numbers.

Please keep this information for your logs.

When contacting Robotiq support, please have this information handy.



FT 300 FORCE TORQUE SENSOR

QUICK START GUIDE

**For installation on
Universal Robots**



New product has a one (1) year warranty.
Refer to your product instruction manual for details.

support.robotiq.com

THANK YOU FOR CHOOSING ROBOTIQ

This step-by-step guide will allow you to **install** and **test** your **FT 300 Force Torque Sensor** on Universal Robots with a CB3.1 controller*.

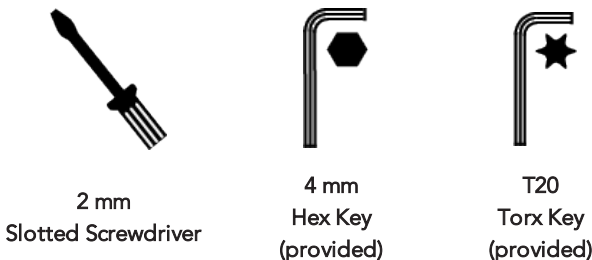
*For installation with a Universal Robots CB2 or CB3 controller, refer to the instruction manual.

1. WHAT IS SUPPLIED

Standard upon delivery of a Universal Robots kit:

- FT 300 Force Torque Sensor.....(FT-300-SEN-001)
- Mechanical Coupling.....(FTS-300-CPL-062)
- Device Cable.....(CBL-COM-2065-10)
- USB to RS485 Adapter.....(ACC-ADT-USB-RS485)
- USB Stick
- Necessary Hardware

2. TOOLS YOU'LL NEED



3. GET THE LATEST

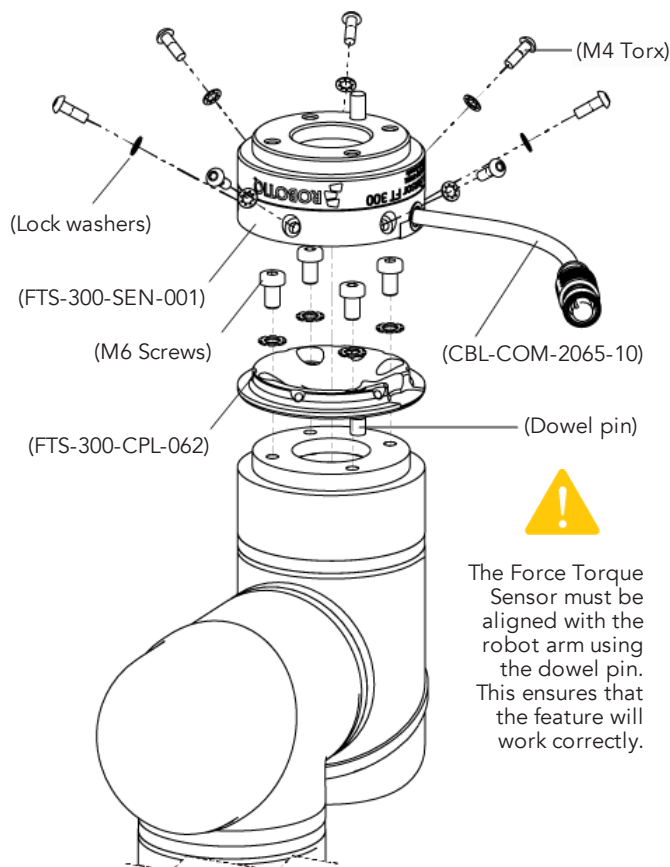
Visit: support.robotiq.com

- Get the up-to-date instruction manual (PDF or web browser).
- Get the latest corresponding **UCS-X.X.X.urcap**.
- Download the .urcap file on a USB stick.

BEFORE OPERATING THE FORCE SENSOR, PLEASE READ INSTRUCTION MANUAL.

4. MOUNTING

- Mount the coupling (FTS-300-CPL-062) on your robot arm. Align with the provided dowel pin*.
- Fix using the provided M6 screw and lock washers.
- Mount the Force Torque Sensor (FTS-300-SEN-001) on the coupling.
- Fix using the provided M4 Torx screws and lock washers.
- Plug the device cable (CBL-COM-2065-10) into the sensor's pigtail and fix the cable along the robot arm using a cable routing system.

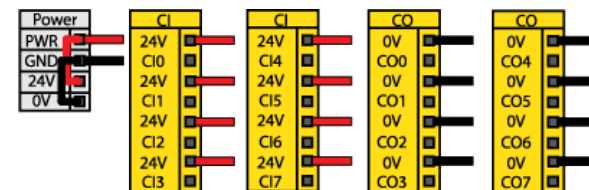


*The dowel pin is meant to have a tight fit on the robot side and a slip fit on the effector side of the assembly.

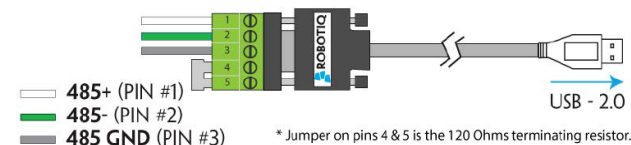
! LEAVE ENOUGH EXCESS CABLE TO ALLOW FULL ROBOT MOVEMENT.

5. WIRING

- The red (24V) and black (0V) wire of the device cable (CBL-COM-2065-10) provide power to the sensor.
- Connect the red wire to a 24V pin.
- Connect the black wire to a 0V pin.



- Connect the white (1), blue (2) and bare (3) wires to the USB converter (ACC-ADT-USB-RS485) as shown.



- Connect the USB converter in the UR controller.

6. SOFTWARE INSTALLATION

- Have a USB stick handy that contains the .urcap file (see step 3).
- Insert the USB stick in the robot's teach pendant.
- Tap **Setup Robot**.
- Tap **URCaps Setup**.
- Tap the + sign.
- Open **Robotiq_Force_Torque_Sensor-X.X.X.urcap**.
- Tap the **Restart** button to restart PolyScope and activate the URCap.

7. CALIBRATION

- In PolyScope, go to **Program Robot**.
- Go to the **Installation** tab and select **FT Sensor**.
- Tap the **Calibration** tab.
- Tap the **Start calibration wizard** button.
- Follow the calibration steps.
- Save the installation file.

! MAKE SURE THERE ARE NO EXTERNAL FORCES APPLIED TO THE SENSOR DURING THE CALIBRATION PROCESS.