PAL

TALOS Ankle Roll Harmonic Drive Unblock

TALOS

Introduction

Purpose

The goal of this document is to describe in detail the operations requested for the several maintenance tasks that humanoid robot TALOS may request.

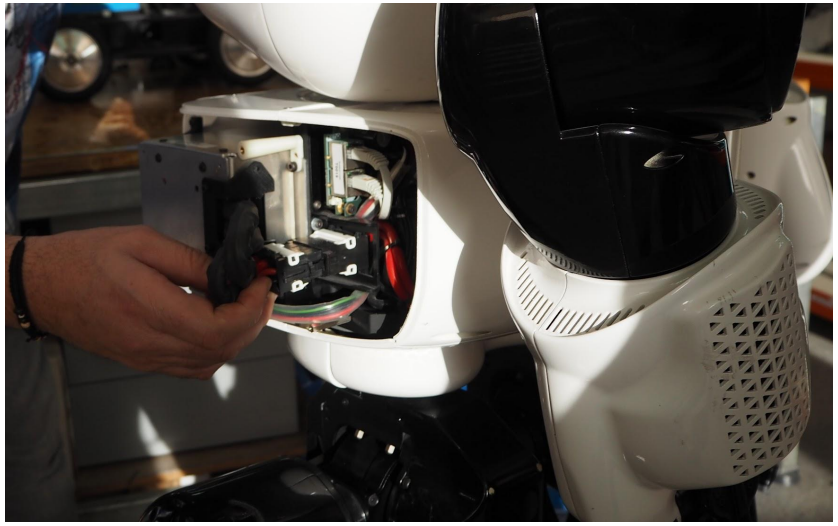
Scope

The scope of this document is framed to describe the procedures to be used for solving hardware issues that could arise with TALOS usage or periodical maintenance task to ensure correct robot functioning.

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Safety

Before any intervention that involves the removal or disconnection of some components from the robot, i.e. logic_box, end_effectors, one of the arms, **it is mandatory to disconnect the battery** from the **power board PB17**.
To unplug the battery, the right cover of the battery pack should be removed and the connector can be accessed:



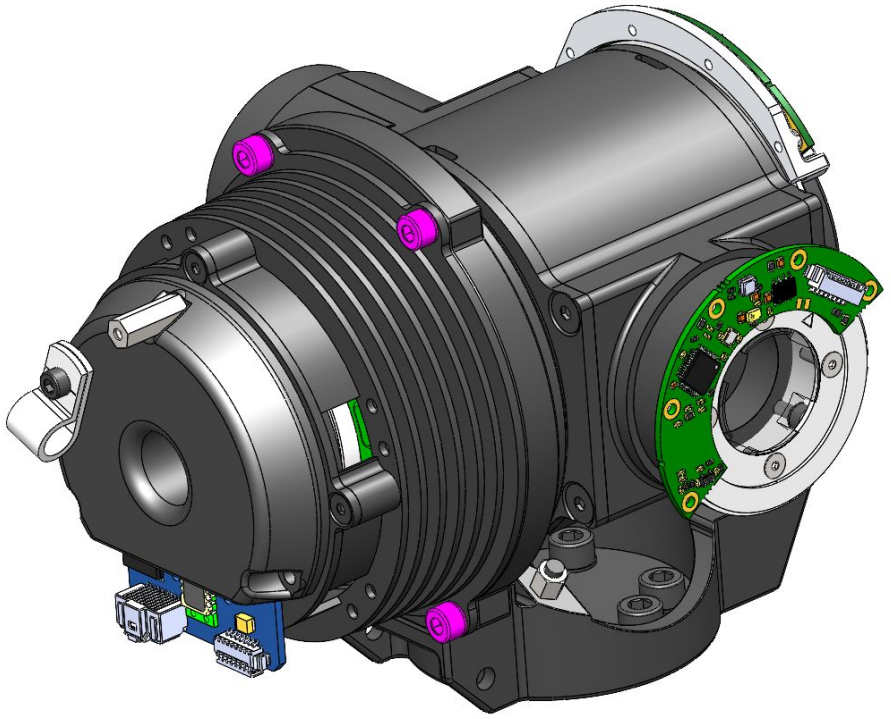


The battery connector, once unplugged, should be protected to avoid pins contact by external objects or fingers.

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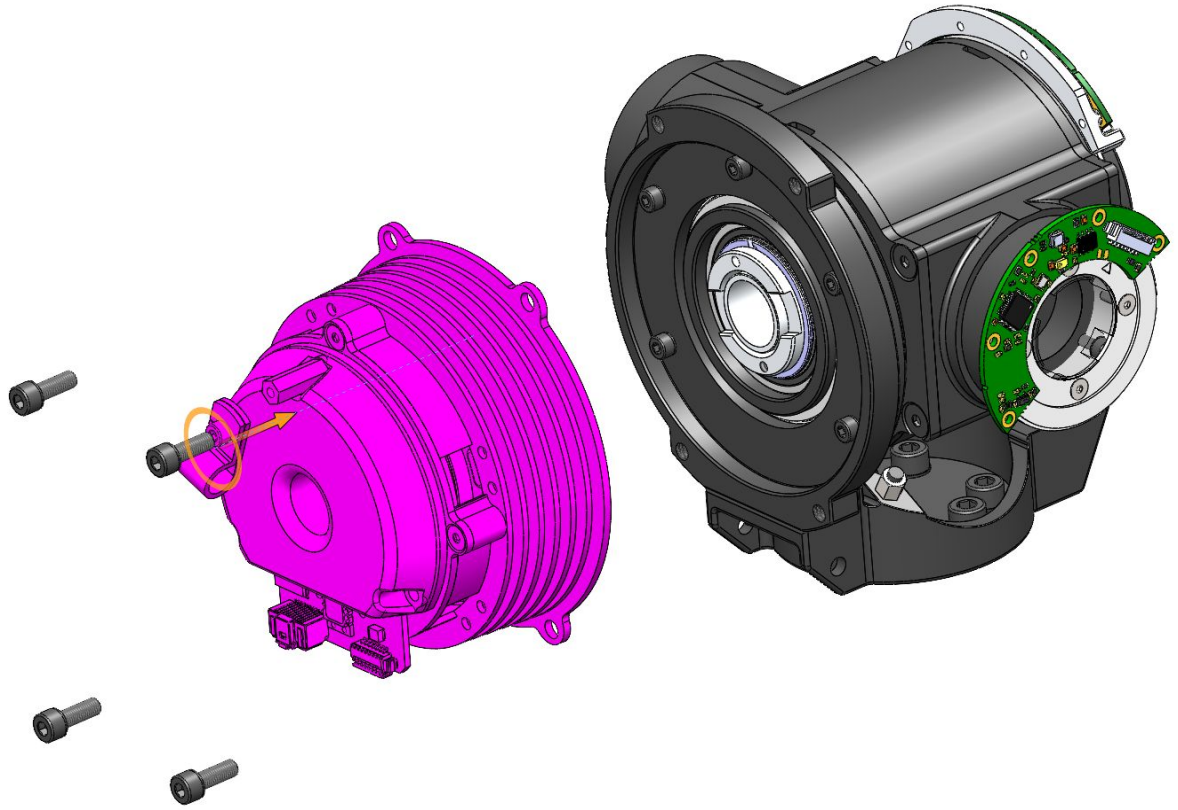
STEP 1: Remove the (x4) – M4×12mm screws.



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STEP 2: Carefully separate the motor subassembly, without damaging the cables.

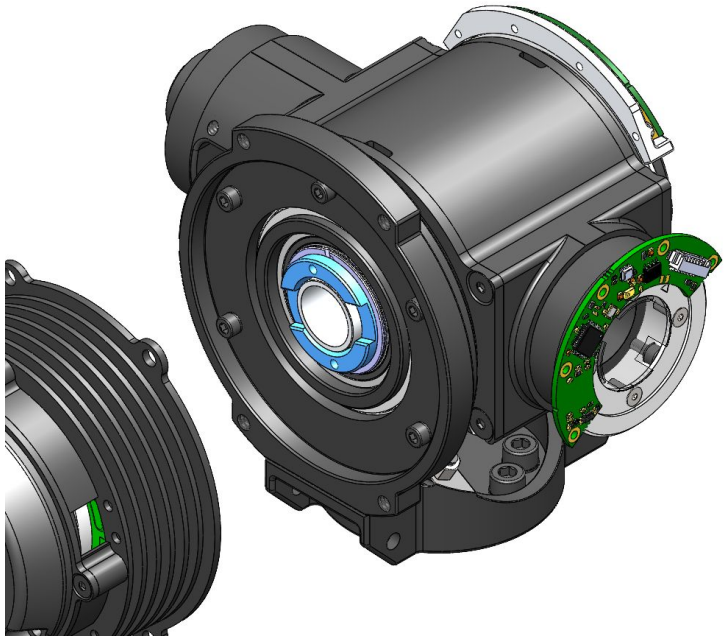


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STEP 3: Try to rotate the rotor to unblock the harmonic drive.

- **By moving the rotor shaft (and the wave generator), the harmonic drive should be unblocked. The flex spline will jump and the teeth will go back to their normal configuration. (x2 M2.5 screws can be screwed to help rotating the rotor)**



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STEP 4: To mount everything back, follow the steps in the opposite order.

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