Transformer Darwin (#001)

Jean Chagas Vaz

Transformer-DARwIn-OP MAnual

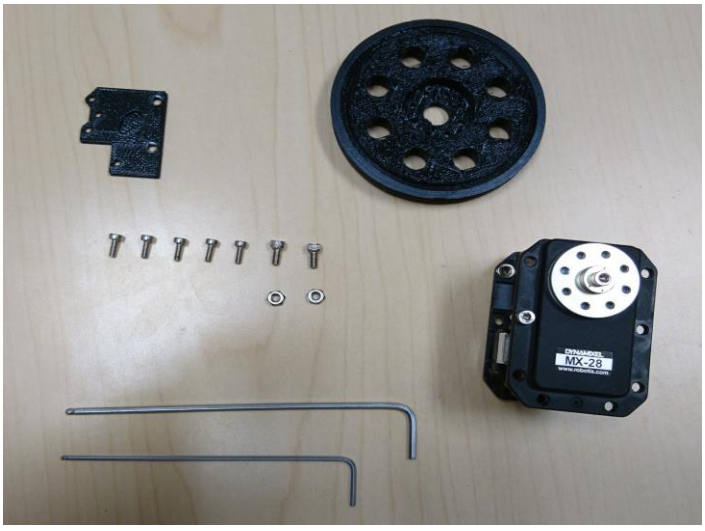
DARwIn-OP (Spring/Summer 2017)

1 ASSEMBLY

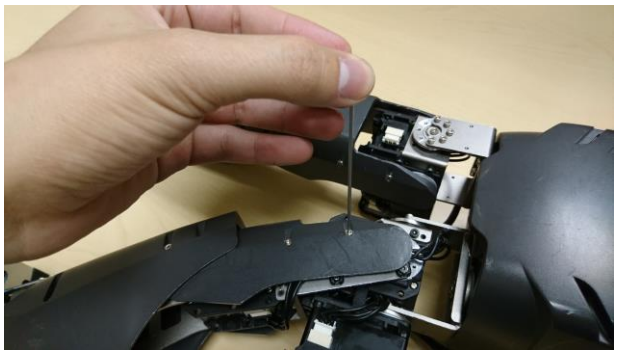
1.1 FRONT WHEELS

This document is a manual intent to instruct the proper way to install the DARwIn-OP wheels

- Tools
  - M2 hex key
  - M3 hex key
- For one wheel, the materials are:
  - 5 (M2) bolts
  - 2 (M3) bolts
  - Wheel
  - Fixture plate
  - MX-28T Dynamixel

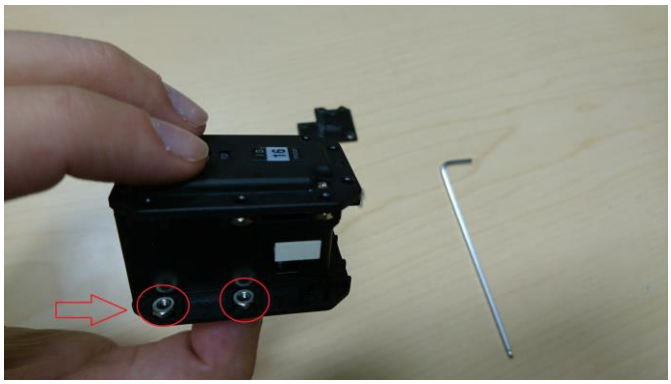


- . Disassemble the plastic cover from DARwin's metal frame

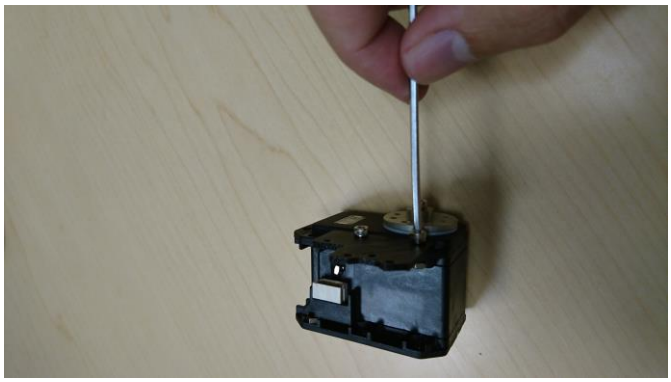


- Fix the “fixture plate” onto the MX-28T Dynamixel

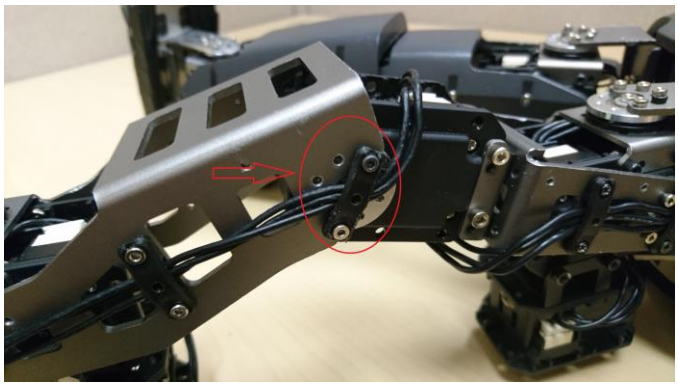
- Position the nuts at correct slots.



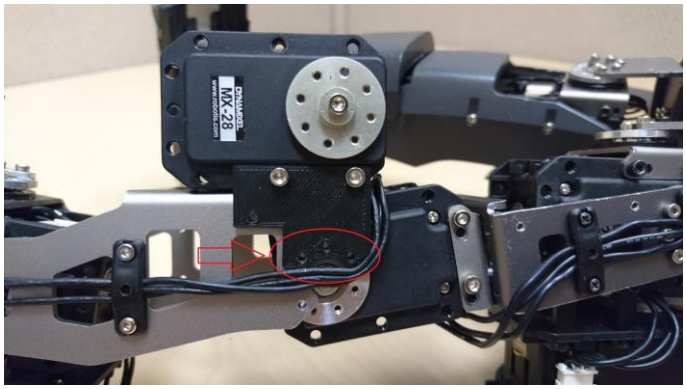
- Then tie up the “fixture plate” with the 3M bolts



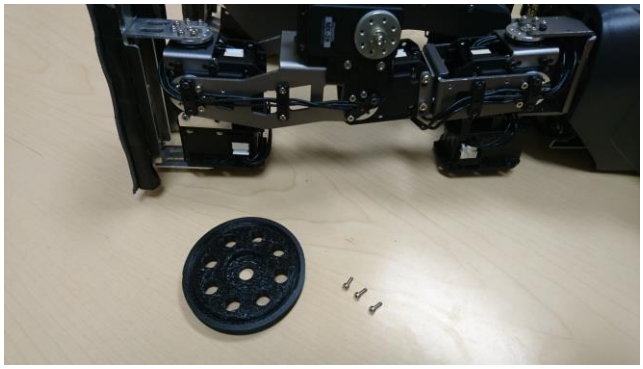
- Remove the little hatch that holds the cable

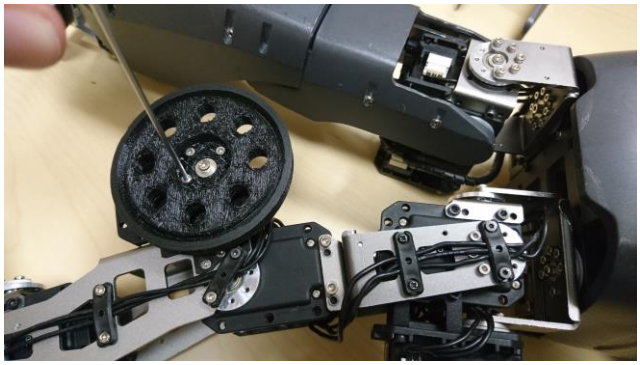


- Place the conjunct on the frame and tie up with 3 (2M) bolts

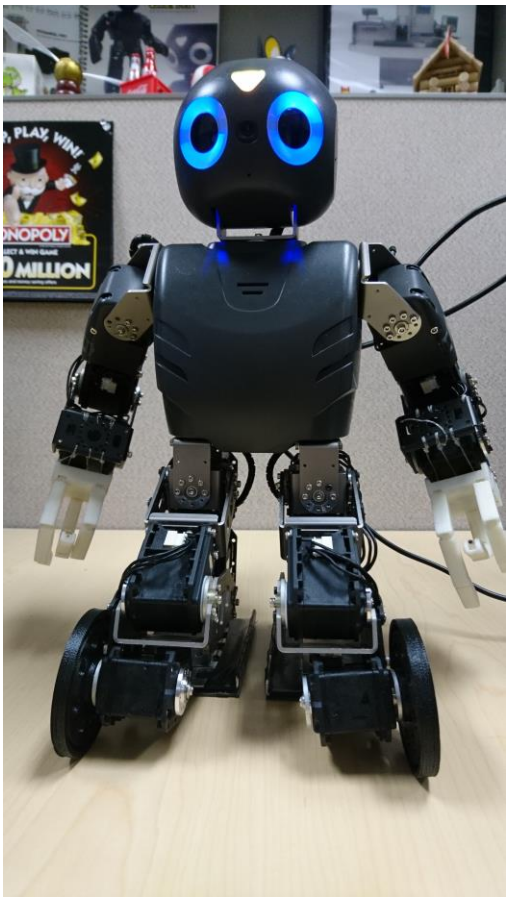


- Tie up the wheel to the MX-28T by using (2M bolts)





- Repeat same steps to assemble another wheel



1.2 PLOW PLATES

NOT DESIGNED YET!

1 SYSTEM OVERVIEW

1.1 SYSTEM CHARACTERISTICS

1.2 SYSTEM ARCHITECTURE

1.3 INFRASTRUCTURE SERVICES

2 SYSTEM DESIGN

2.1 DESIGN METHOD AND STANDARDS

2.2 DOCUMENTATION STANDARDS

2.3 NAMING CONVENTIONS

2.4 PROGRAMMING STANDARDS

2.5 SOFTWARE DEVELOPMENT TOOLS

2.6 OUTSTANDING ISSUES

2.7 DECOMPOSITION DESCRIPTION

3 COMPONENT DESCRIPTION

3.1 COMPONENT IDENTIFIER

3.1.1 Type

3.1.2 Purpose

3.1.3 Function

3.1.4 Subordinates

3.1.5 Dependencies

3.1.6 Interfaces

3.1.7 Resources

3.1.8 References

3.1.9 Processing

3.1.10 Data

4 SOFTWARE REQUIREMENTS TRACEABILITY MATRIX

DOCUMENT CONTROL

Title: Technical Design Document

Issue: Transformer DARwIn-OP

Date: 20 April 2017

Author: Jean Chagas Vaz

Distribution: Drones and Autonomous Systems Lab (DASL)

Filename: DARwIn-OP Spring/Summer 2017

DOCUMENT SIGNOFF

Nature of Signoff	Person	Signature	Date	Role
Author	Jean Chagas Vaz			Project Member
Reviewers				

DOCUMENT CHANGE RECORD

Date	Version	Author	Change Details
TBD	Draft 1	Jean Chagas Vaz	First complete draft
			Review and update
			Updating format
			Apply review comment and issue