

Robot Practical Course Assignment #2

This assignment is supposed to deepen your knowledge and understanding of DH Parameters and URDF descriptions.

Task 2.1 Measuring: Find the wall-mounted Mitsubishi PA10-6C in the lab in F-329.

Measure the physical properties of the manipulator and make a sketch of the geometry. Use the provided measuring tools and expect the required angles to be right angles.

Task 2.2 URDF description: Create a URDF file using geometric primitives which represents the properties of the Mitsubishi PA10-6C. Visualize the arm in Unity to verify your URDF description and show your result to a supervisor.

Check the following link for available Syntax in URDF:

<http://wiki.ros.org/urdf/XML>

To visualize the URDF in Unity:

- Open the Unity3D project in your home folder
- Create a new, empty scene
 - File Tab → New Scene
 - or
 - Project Window → Create → Scene
- Import your URDF file
 - Addons Tab → URDF Importer
 - * Path relative to Assets/
 - Repeat import after changing your URDF
 - Delete old Models if required

Task 2.3 DH Parameters: Extract the DH Parameters of the Mitsubishi PA10-6C from your URDF and present the table to a supervisor.