

Move-To URCap Example

Description

The Move-To URCap provides a working example for moving the first axis in a given axis group via controls presented in the toolbar.

Build

- The URCap SDK must be installed and available in the build environment
1. `cd move-to`
 2. `./build.sh`

Note: By default the build script will attempt to build the URCap then deploy to a local simulator (if available).

Usage

- Note: The Move-To URCap does not manage the lifecycle of any world-model or axis-group entities.
1. On the robot, execute a program or script that creates an Axis Group and Axis

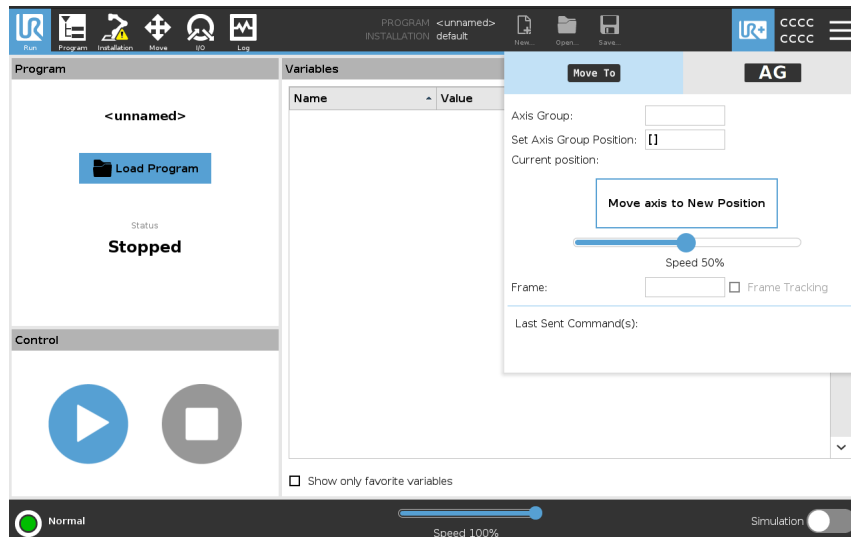
- The program/script should finish without removing the Axis Group. Remember to configure the axis as well, the EtherCAT Axis Config URCap could also be used for this purpose.

- Example script:

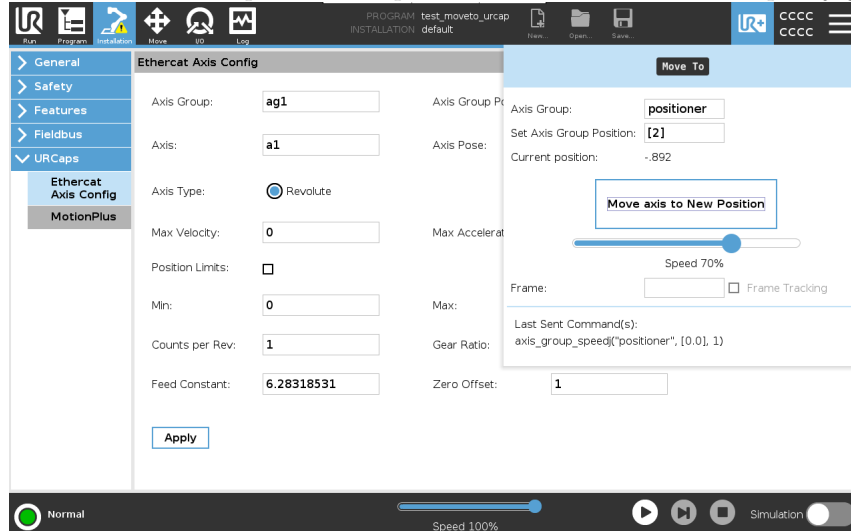
```
POSITIONER_AXIS_TYPE = 0 # 0:revolute, 1:prismatic
POSITIONER_VELOCITY_LIMIT = d2r(360) # rad/s
POSITIONER_ACCELERATION_LIMIT = d2r(3600) # rad/s^2
POSITIONER_ENCODER_RESOLUTION = 3600 # counts/rev
POSITIONER_FEED_CONSTANT = d2r(360) # rad/rev
POSITIONER_GEAR_RATIO = 1.0
POSITIONER_ZERO_OFFSET = 0
```

```
reset_world_model()
axis_group_add("positioner", p[0, 0, 0, 0, 0, 0], "world")
axis_group_add_axis("positioner", "axis1", "", p[0, 0, 0, 0, 0, 0],
POSITIONER_AXIS_TYPE, POSITIONER_VELOCITY_LIMIT, POSITIONER_ACCELERATION_LIMIT)
```

2. After the program has finished executing, open the Axis Group panel of the toolbar

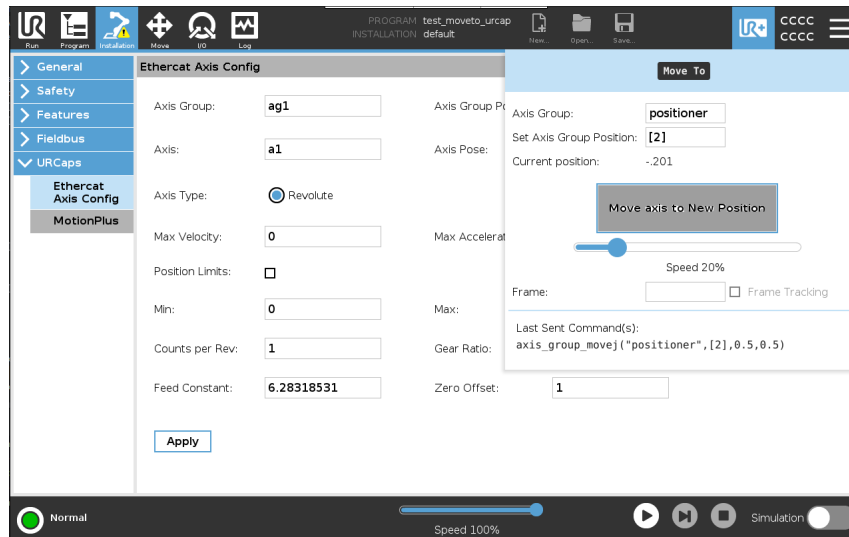


3. Enter the indicated parameters specific to the desired Axis Group to jog



4. Move specified axes of the given Axis Group by holding down the 'Move axis to New Position' button.

- The background color will change from white to grey indicating that the motion is in progress. The **Last Sent Command** field will update to indicate the command that has been sent to the robot via the Primary Interface
- If the 'Frame Tracking' checkbox is checked, the robot will perform frame tracking as the axis group is moving.



5. Halt jogging by releasing the held-down button
 - The axis group motion will halt, and the background color will change back to white indicating that the motion has stopped.