MachineLogic Application Examples

Contents

Application Examples

This document is intended to provide a variety of program examples that can be downloaded from this page and uploaded to any MachineLogic session. It contains examples for both code-free and Python editor for all device type supported in MachineLogic.

Uploading an application

follow the steps below to upload a new application to MachineLogic. For more information on programming and configuration in MachineLogic,click here.

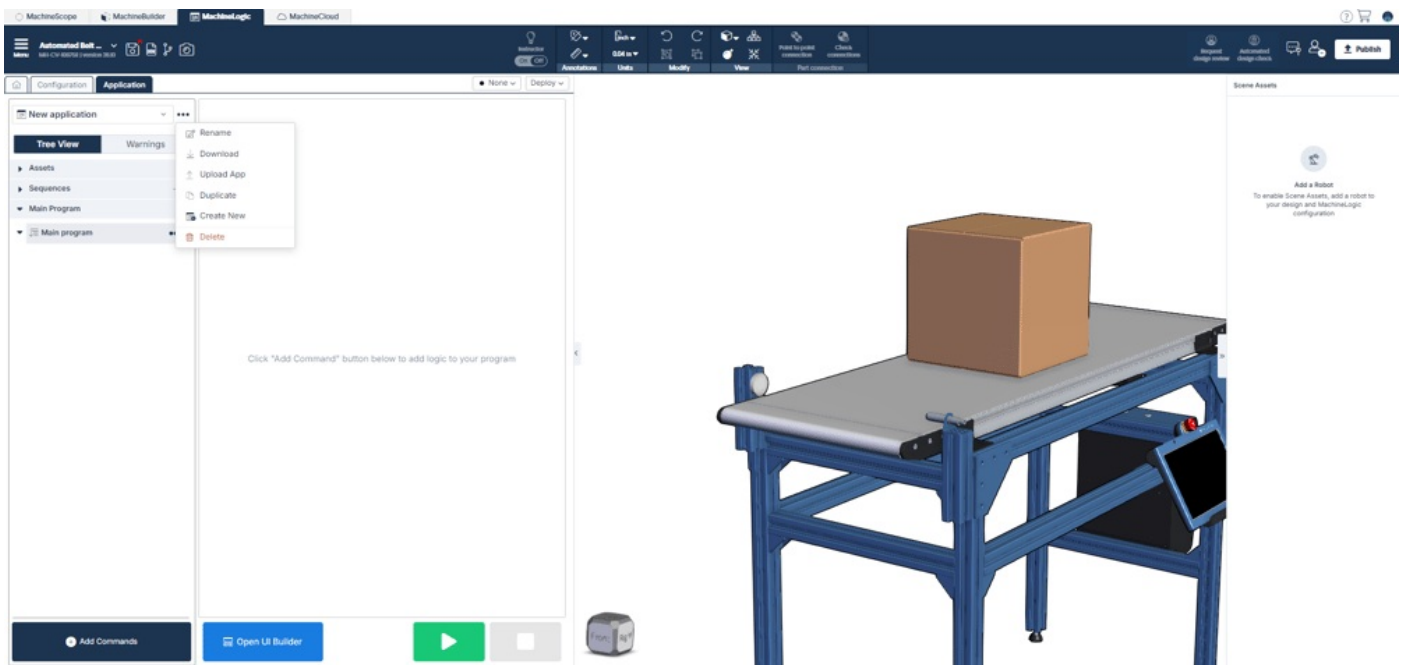1. **Creating a new application**
   To create a new application, click on the New App button as shown below:
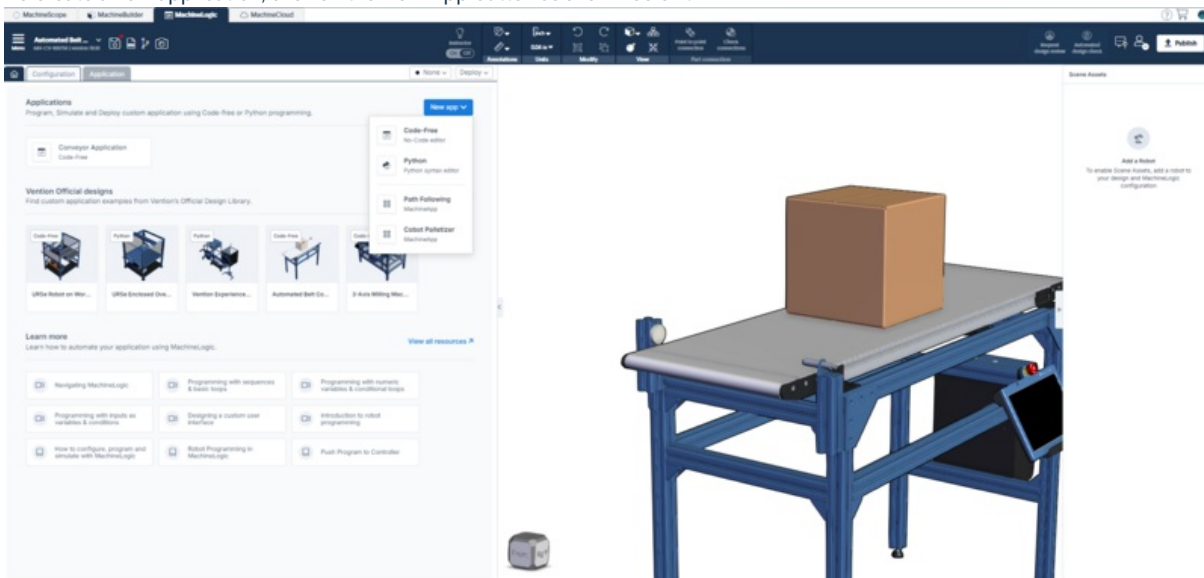
2. **Uploading an application**
   To upload an application, select the context menu and select the **Upload** Button.

3. **Assigning a configured device to an instruction.**

Once an application has been uploaded, devices must be assigned to their corresponding instruction. To assign a device to a code-free instruction, it must first be configured. To learn more about configuration in MachineLogic, click here

Code-Free

Once all devices have been configured, simply assign each device to its corresponding instruction using the drop-down menu.
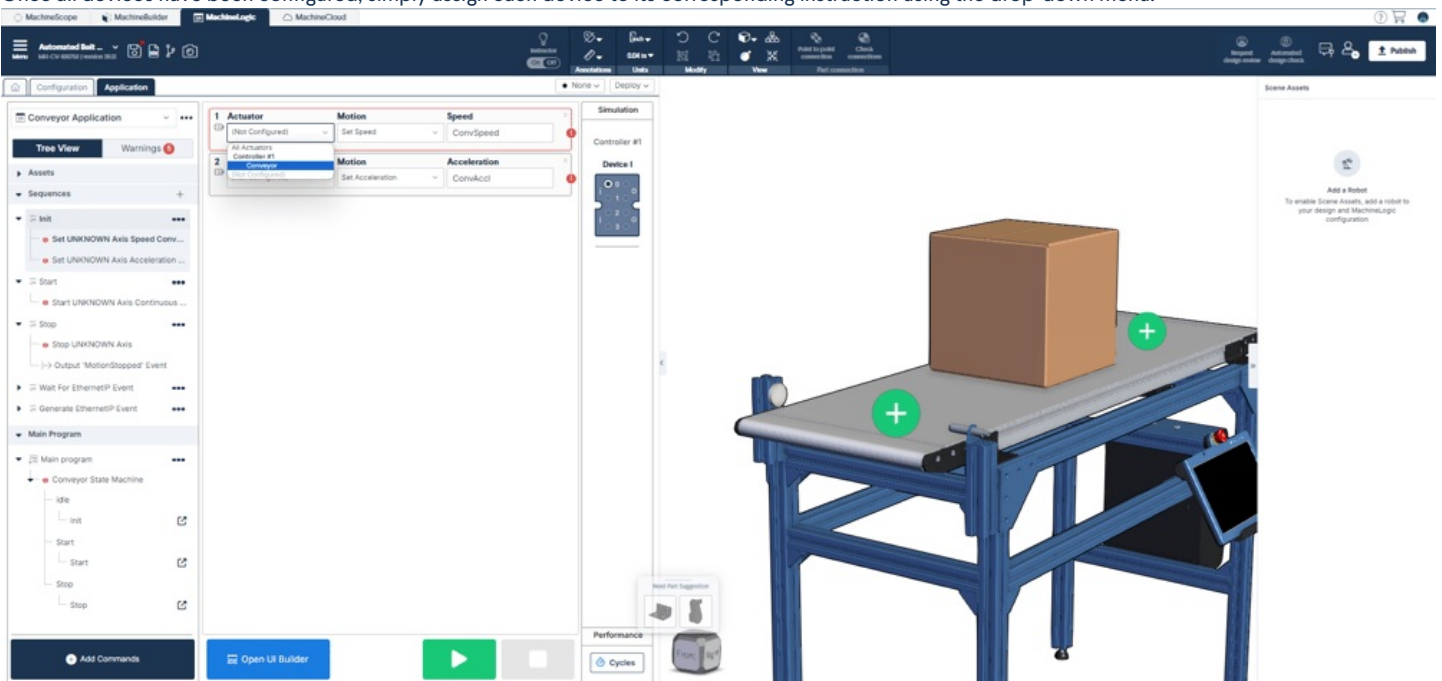

Python

Once all devices have been configured, simply assign each device to its corresponding machine class getters that appear at the header of the program:

```
my_actuator = machine.get_actuator("Actuator name from configuration")
my_digital_output = machine.get_output("Output name from configuration")
my_digital_input = machine.get_input("Input name from configuration")
```

Every time a new application is created, the machine getters are automatically populated as per the content of configuration page.
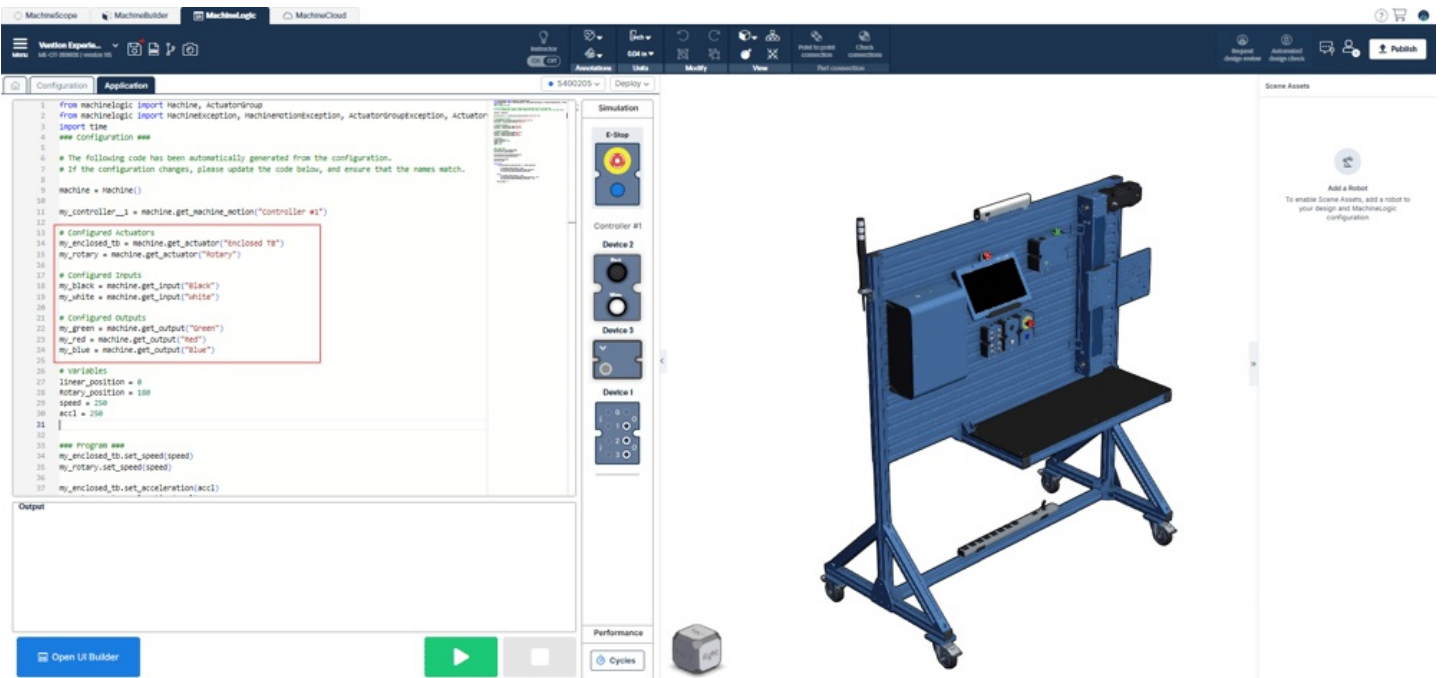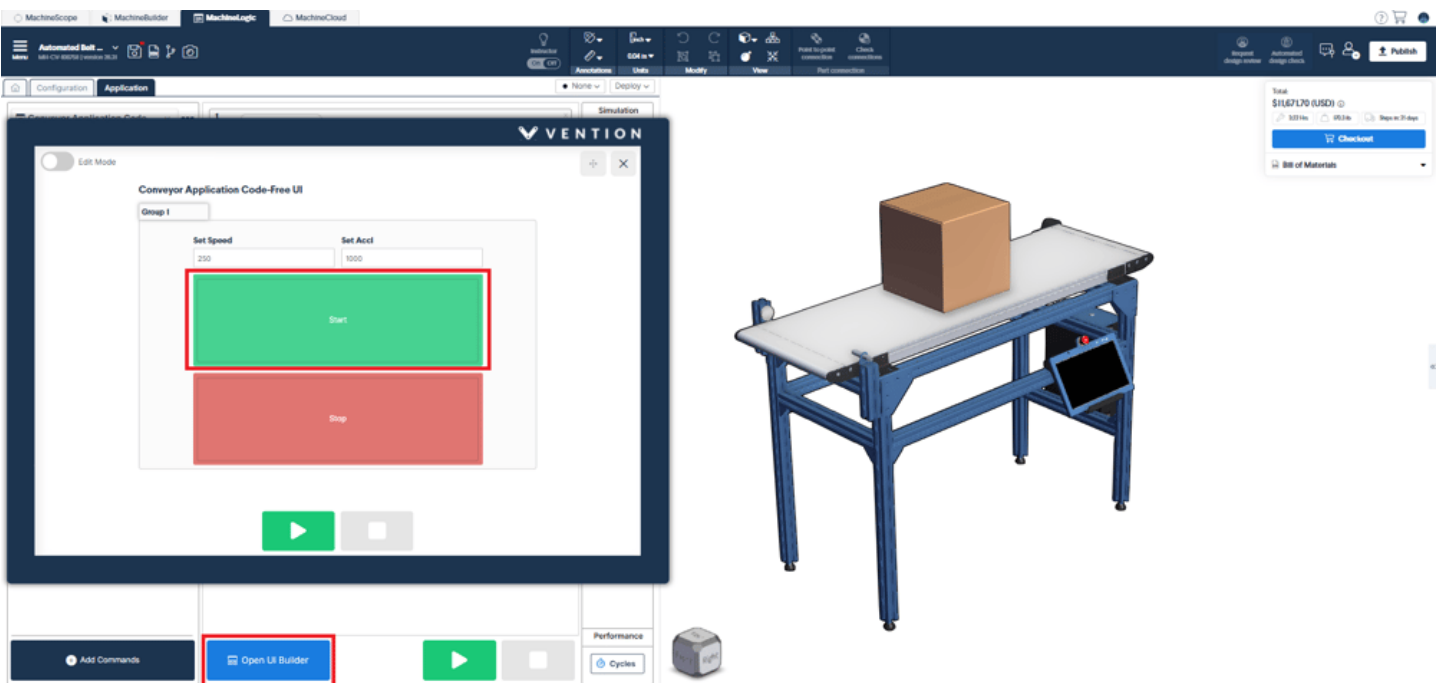
Conveyor Application

[Link to Design Example](#)

This application controls a simple conveyor that stops when a box object is detected by a beam sensor.

It contains instructions for the following devices:

- Actuator (Conveyor)
- Digital Input (Sensor)

To operate the conveyor, press play and select the UI builder button to access the conveyor controls.
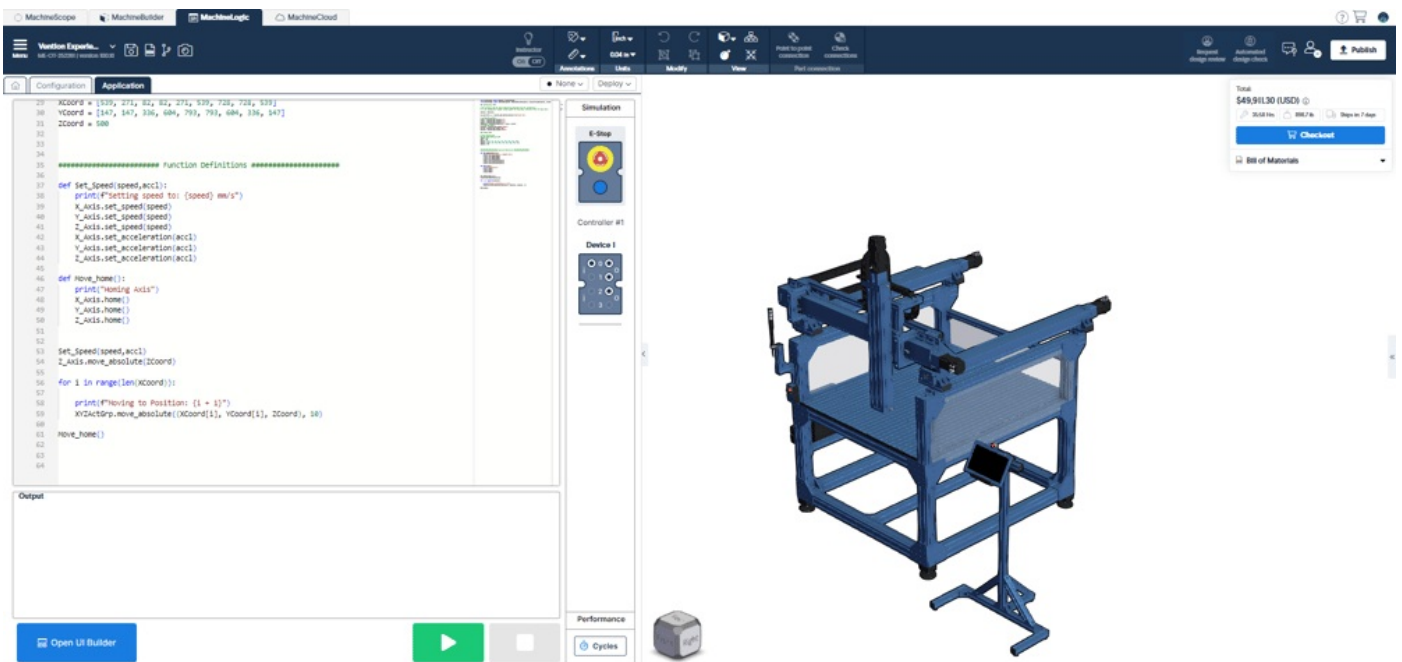

image

Download Code-Free Example

Linear Actuator / Gantry Robot Application

This application controls a simple Gantry composed of three linear actuators, two of which are synchronized.
It contains instructions for the following devices:

- Actuator 1 (X Axis)
- Actuator 2 (Y Axis)
- Actuator 3 (Z Axis)
- Digital Input (Light Curtain)
- Output 1 (Green light)
- Output 2 (Red light)
- Output 3 (Blue light)
- To operate the conveyor, press play and select the UI builder button to access the machine controls.

Linear Actuator & Rotary Actuator Application

This application controls a workstation composed of both a linear and rotary actuator. To Operate the application, simply select the play button.
This application contains instructions for the following devices:

- Linear Actuator (Enclosed TB)
- Rotary Actuator (Rotary)
- Digital Input 1 (Black button from Push button module)
- Digital Input 12 (White button from Push button module)
- Output 1 (Green light from tower light)
- Output 2 (Red light from tower light)
- Output 3 (Blue light from tower light)
- To Operate the application, simply select the play button.

<div align="center">
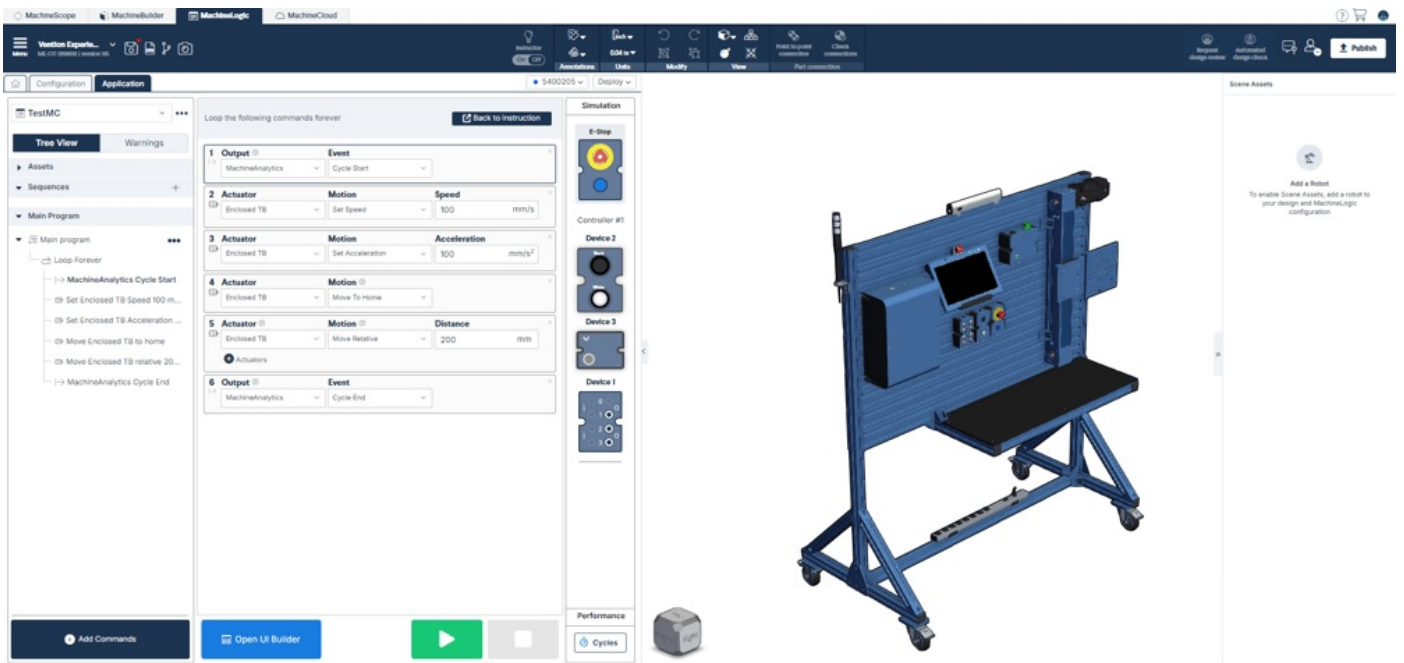
Download Code-Free Example
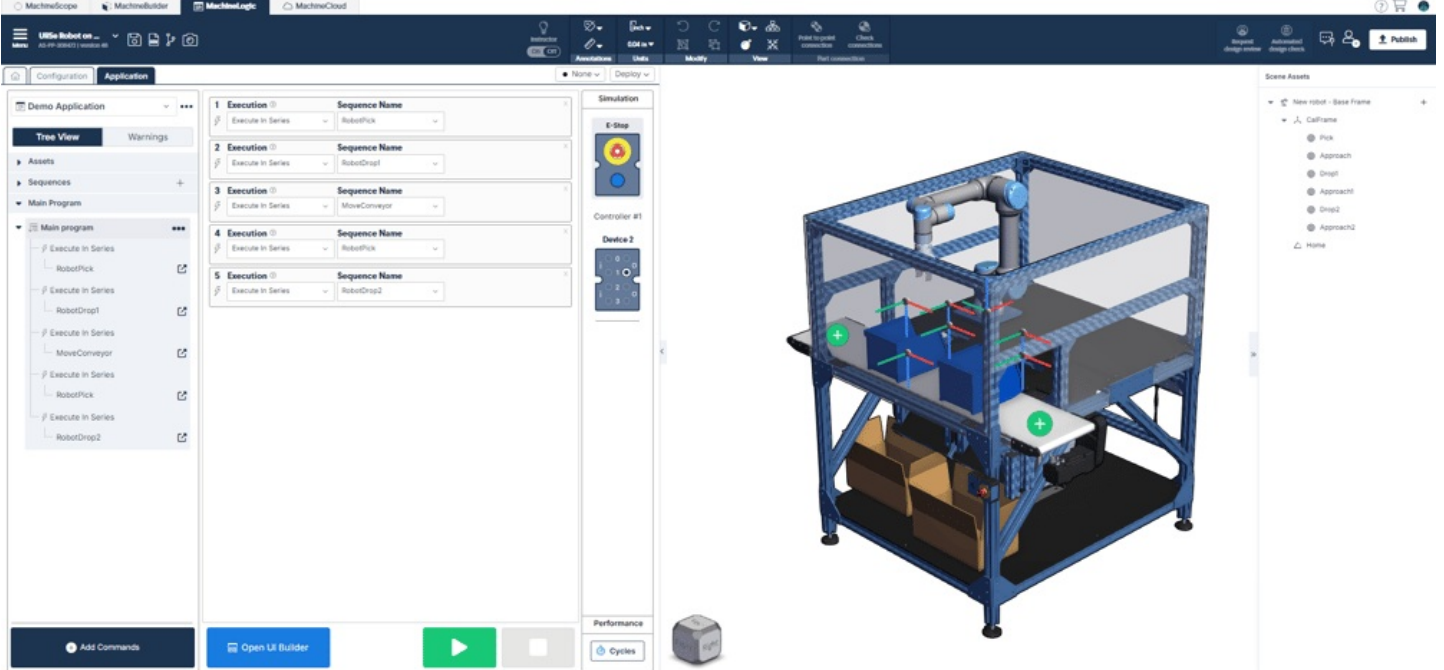
Download Python Example

</div>

Robot Application

Link to Design Example

This application controls a UR10 robot and a conveyor.

This application contains instructions for the following devices:

- Robot (New robot)
- Actuator (Conveyor)
- Digital Output (Gripper)

To Operate the application, simply select the play button.

Download Code-Free Example

Download Python Example