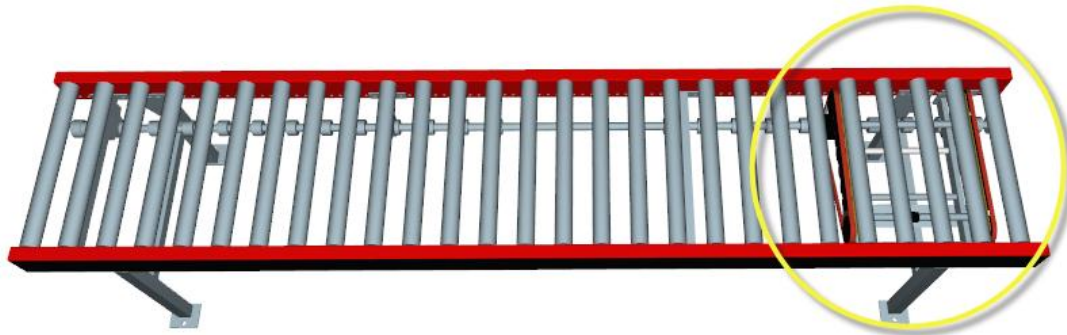


How to!

Build an Experiior Assembly

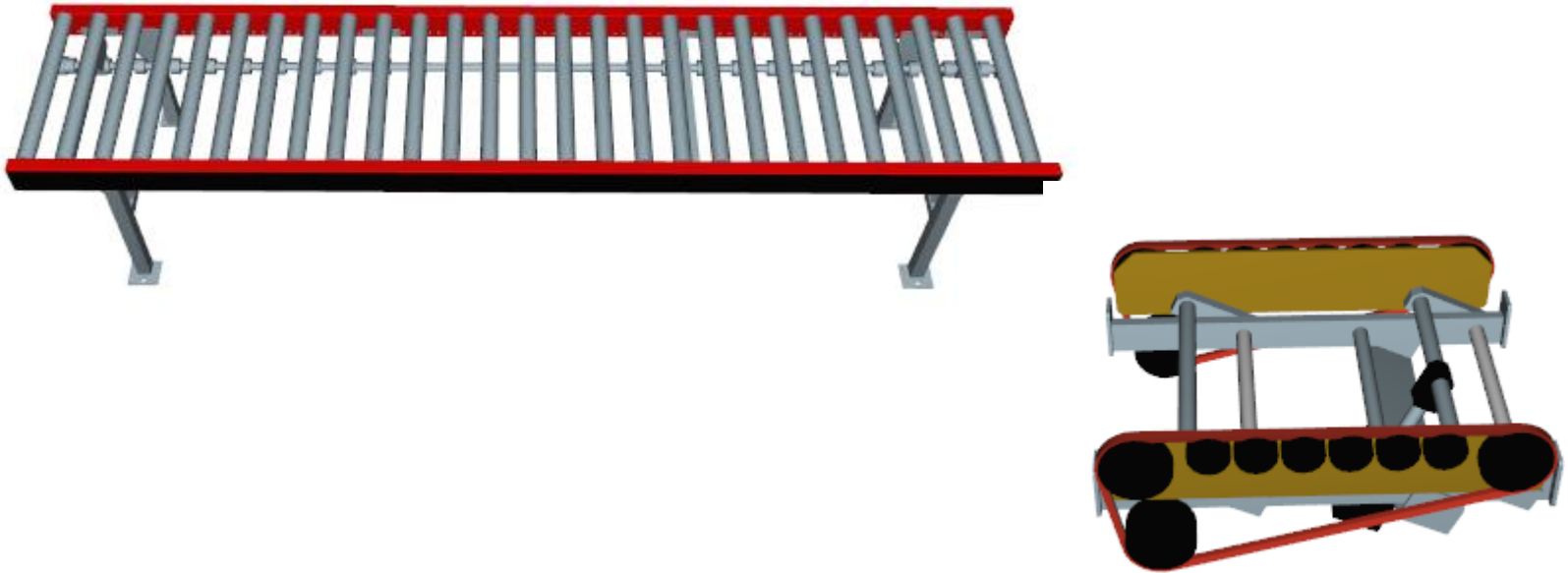
This guide explains how to use an existing 3D object in Experiior

1. Divide components



Make sure to divide the different parts that has to be handled separately. In this example the component contains a roller conveyor and a transfer belt – we are going to control the transfer belt by a pneumatic device (lifting up and down).

2. Convert the parts



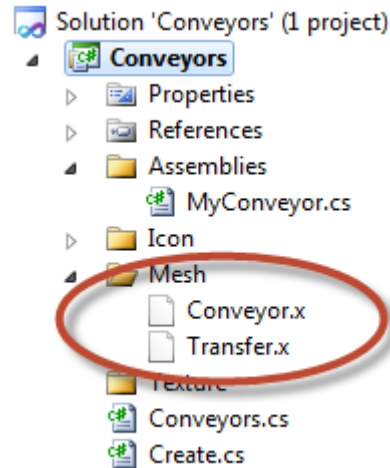
The parts has to be converted into the Microsoft DirectX format or COLLADA.
This is possible with most CAD tools.

3. Create the MyConveyor object

```
public class MyConveyor : Assembly
{
    public MyConveyor(MyConveyorInfo info)
        : base(info)
    {
    }
}
```

Just inherit from the base Assembly class. The base class contains common functionality that makes it easy to build up assemblies out of static parts, rigid bodies, sensors (triggers), pneumatic, timers, motors, connections and many other usefull predefined classes.

4. Add resources



```
public MyConveyor(MyConveyorInfo info)
    : base(info)
{
    Core.Parts.Mesh conveyor = (Core.Parts.Mesh)Add(new Core.Parts.Mesh(Common.Meshes.Get("Conveyor")));
    Core.Parts.Mesh transfer = (Core.Parts.Mesh)Add(new Core.Parts.Mesh(Common.Meshes.Get("Transfer")));

    transfer.LocalPosition = new Vector3(0, 0.11f, -1.08f);
}
```

Embed the CAD files into your solution and add them to your assembly. The "transfer" part has to have a position that is relative to the center of the assembly.

5. Add a pneumatic device

```
public MyConveyor(MyConveyorInfo info)
    : base(info)
{
    Core.Parts.Mesh conveyor = (Core.Parts.Mesh)Add(new Core.Parts.Mesh(Common.Meshes.Get("Conveyor")));
    Core.Parts.Mesh transfer = (Core.Parts.Mesh)Add(new Core.Parts.Mesh(Common.Meshes.Get("Transfer")));

    transfer.LocalPosition = new Vector3(0, 0.11f, -1.08f);

    Core.Motors.Pneumatic pneumatic = new Pneumatic();
    pneumatic.Add(transfer);

    Add(pneumatic);
}
```

Create an instance of the Pneumatic class and link the "transfer" part to the pneumatic object. The "transfer" part will move according to the properties for pneumatic device.

6. Done!



When the PLC activates the "eject" signal on the pneumatic device the transfer is lifted.

6. Done!

