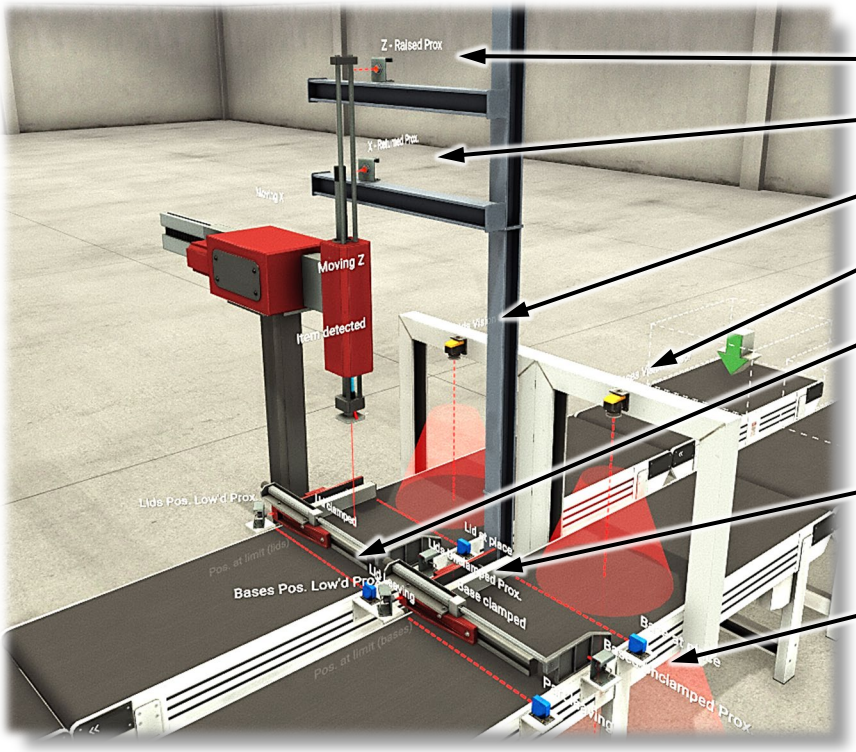
NOTES AND IDEAS:

The following images detail some of the changes suggested and necessary to move from Lab 2 to Lab 3. Your factory will not necessary look exactly like the one shown here, however, the concepts are similar. Your factory could have more or fewer inputs and outputs. In fact, the example shown here may still be missing a few important indicators. The position proximity switch could have already been added depending on how you archived position indication in Lab 2.

As mentioned at the end of the lab document, the interfacing between PLC 1 and PLC 2 is operating at a pretty basic level and, as such, the equipment may not run perfectly. Key requirements have not been specified due to some impossible operational issues such as the number of Lids and Bases of each type are not equal. Without buffering capability, it is virtually impossible for the equipment to run without purposely loosing parts.

Students are encouraged to create a basic report with notes and ideas required to move from Lab 2 to Lab 3. The screenshots and notes shown below are a small example of what is expected.

PLC 1 / 2 – Recommended I/O



Suggested and required additional sensors for Lab 3

Note that brackets and supports are not required but aid in visualization of the simulation.

PLC 1 (Sends Parts)

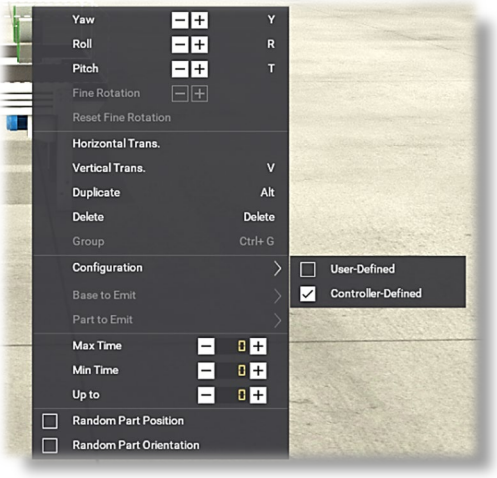
Emitter Settings – User Defined

Changed to 5 seconds (Min and Max)

Remover Settings – Controller Defined

Add Input and Output Words to I/O

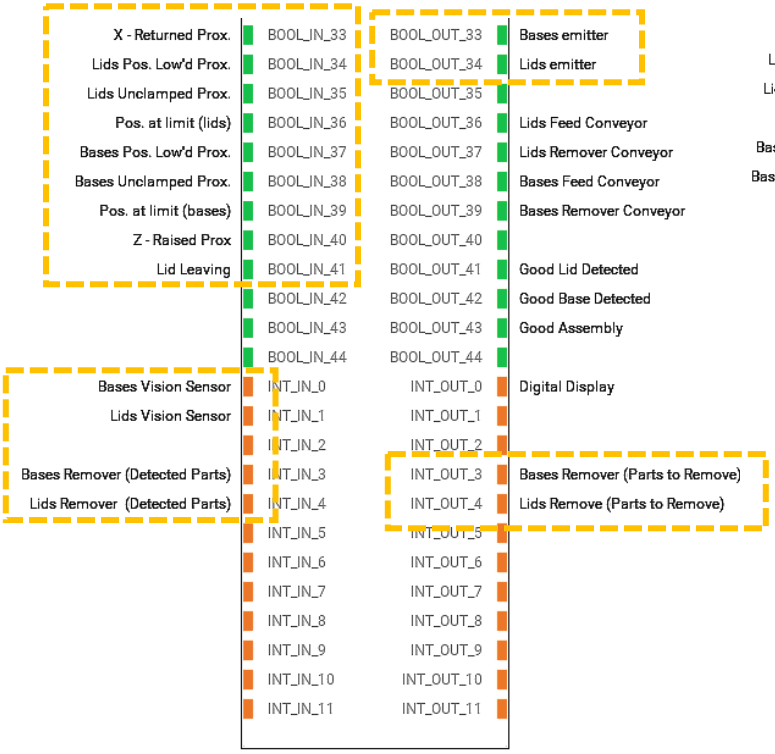
PLC 2 (Receives Parts)



Emitter Settings – Controller Defined
Changed to 0 seconds (Min and Max)
Add Input and Output Words ot I/O

Remover Settings – User Defined
Set to remove all objects

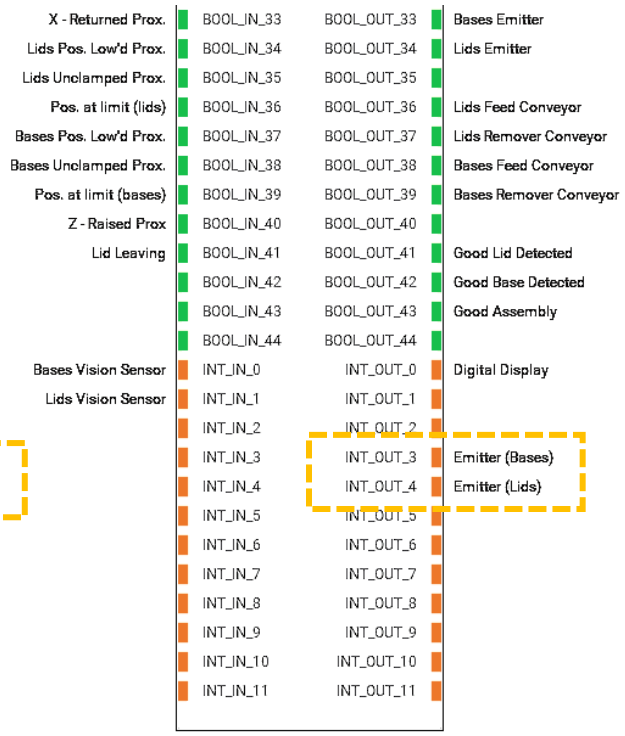
PLC 1 (Sends Parts)



Add:

- Remover Integers
- Lid and Base Emitter Output
- Vision Sensors
- Proximity Switches for Position Detection

PLC 2 (Receives Parts)



Add:

- Emitter Integers
- Lid and Base Emitter Output
- Vision Sensors
- Proximity Switches for Position Detection