The VXM can be easily interfaced to Programmable Logic Controllers (PLCs) or other logic devices.

This Application Note demonstrates a method of configuring the VXM’s inputs and outputs for PLC interfacing. The program for this example demonstrates incrementing a stack of parts into position.

**Materials Needed:**
1. Auxiliary I/O Breakout Module or DB15HD (VGA) cable

**Wiring:**
The following inputs/outputs on the VXM I/O can be interfaced to a PLC or other logic:

<table>
<thead>
<tr>
<th>Pin#</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0V</td>
</tr>
<tr>
<td>4</td>
<td>Run</td>
</tr>
<tr>
<td>5</td>
<td>I1</td>
</tr>
<tr>
<td>7</td>
<td>I3</td>
</tr>
<tr>
<td>8</td>
<td>I4</td>
</tr>
<tr>
<td>14</td>
<td>O1</td>
</tr>
<tr>
<td>15</td>
<td>O2</td>
</tr>
</tbody>
</table>

**Program:**
Program numbers 3, 1, and 0 contain the code for this example. Program 3 moves back to home position. An Input 3 will jump to this program during a wait command. Program 1 does the advancing up to next position with a wait and output at each position, looping 10 times. Program 0 establishes home at the + limit.

The `setI7` command enables Input 3, 4 and Run (default.) The `rsm` command saves the program permanently in the VXM.

<table>
<thead>
<tr>
<th>Example #1</th>
<th>Motors run</th>
<th>RAM used</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advance on Input</td>
<td>1</td>
<td>48</td>
<td>Advance/ Interrupt/ Home on Inputs</td>
</tr>
</tbody>
</table>

```
E
PM-3 ;Select and clear program 3
S1M3000 ;Set high speed
IA1M0 ;Move to zero position
U15 ;Output 2 high to signal at home
J1 ;Jump to program 1

PM-1 ;Select and clear program 1
U31 ;Wait and Output
;An Input 3 here will interrupt U31 and jump to pgm 3
U14 ;Output 2 low to signal not at home
S1M1500 ;Set running speed
I1M-400 ;Advance up
L10 ;Repeat 10 times
J3 ;Jump to program 3 to go home

PM-0 ;Select and clear program 0
A1M4 ;Set acceleration to 4
S1M600, I1M0 ;Home to + limit
I1M-100 ;Move off limit
IA1M-0 ;Zero motor position register
U15 ;Output 2 high to signal at home
J1 ;Jump to program 1

setI7 ;Set Inputs to default mode
rsm
```