Lab 7: Sequencing Control with the Handling Station

# Worksheet by Todd Johns, Dolan Stapleton, and Kyle Bennett

Defining the Logic

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| --- | --- | --- | --- |
| Step | Condition | Action | Output |
| 0 | 1AI = 11S1 = 1 | Home Position: Cylinder 2A retracted, Cylinder 3A Open, Cylinder 1A retracted, pushbutton not pressed | 2AI = 02AO = 0 |
| 1 | 1S1 = 12S1 = 1Switch\_0 flipped | Cylinder 2A extends | 2AI = 1 |
| 2 | 2AI = 12S2 = 1  | Cylinder 3A closes | 3A = 1 |
| 3 | 3A = 1 | Cylinder 2A retracts | 2AO = 1 |
| 4 | 2AO = 12S1 = 1 | Cylinder 1A extends | 1AO = 1 |
| 5 | 1AO = 11S2 = 1 | Cylinder 2A extends | 2AI = 1 |
| 6 | 2AI = 12S2 = 1 | Cylinder 3A opens | 3A = 0 |
| 7 | 3A = 0 | Cylinder 2A retracts | 2AO = 1 |
| 8 | 2AO = 12S1 = 1 | Cylinder 1A retracts | 1AI = 1 |

NOTE: You may wish to *also* create a flowchart using Visio to help visualize the flow of the logic this program should perform.

Performing the Logic

1. Include a screenshot of your program below.

