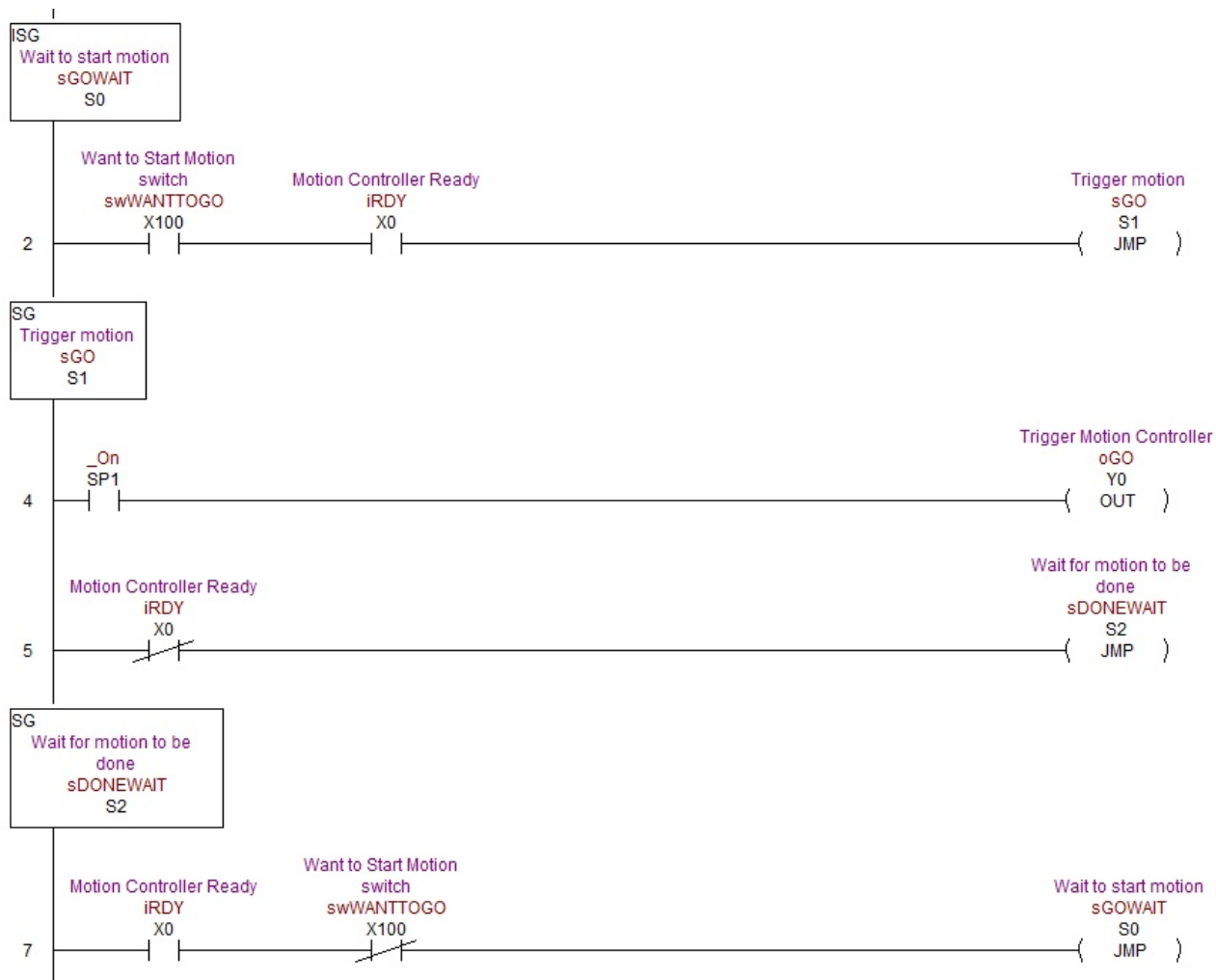




LinuxCNC G-code:

```
O100 WHILE [1]
    M62 P0      (turn on DOUT0)
    M66 P0 L3   (wait for DIN0)
    M63 P0      (turn off DOUT0)
    G1 X0 Y0 Z0
    ...
    M62 P0      (turn on DOUT0)
    M66 P0 L4   (wait for /DIN0)
O100 ENDWHILE
```

Motoman DX100 Controller:

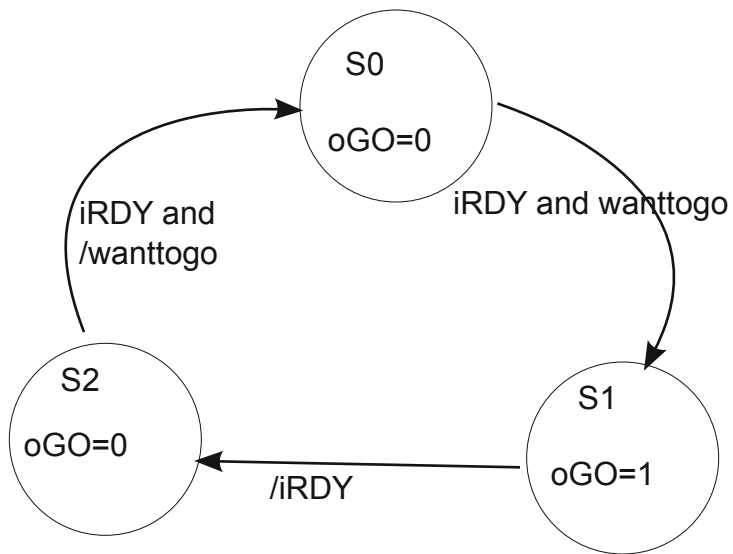
```
*LABEL
DOUT OT#(1) ON
WAIT IN#(1)=ON
DOUT OT#(1) OFF

MOVL ...

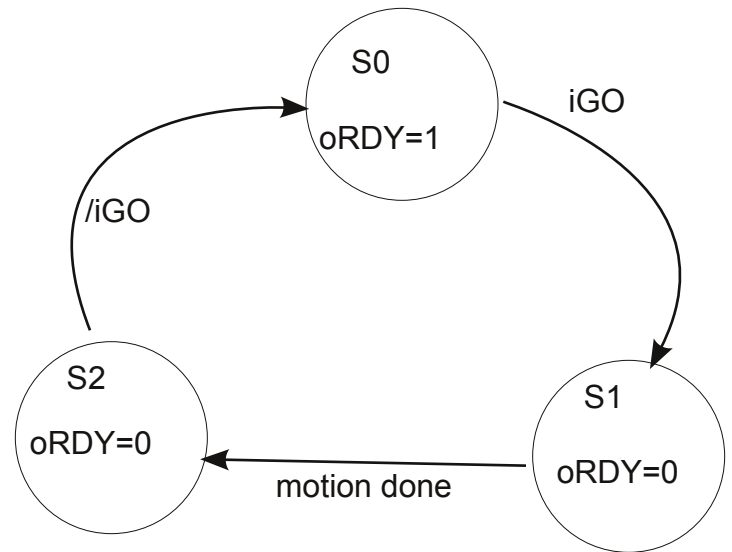
DOUT OT#(1) ON
WAIT IN#(1)=OFF

JUMP *LABEL
```

PLC State Machine



M.C. State Machine



Testing digital I/O in LinuxCNC

1. Open dialog Machine -> HAL Configuration
2. Select Watch tab and Pins -> Motion -> digital-in-00 and digital-out-00
3. Use MDI M64 P0 to turn off DOUT0 and M65 P0 to turn on DOUT0.