MyPLCGuy Simulator — I/O List

Tuesday, 27 October 2026 — Student reference

Every device on the MyPLCGuy Simulator panel is wired to a fixed Micro800 input or output. Use the variable names below in your program, exactly as you would with a real PLC. The panel shows each device's address under it.

** Stop, E-Stop, the overloads and the remote Stop are wired normally closed: their input is ON when the device is NOT operated. Use a normally open contact for them in your program, so the rung breaks when the device operates.

Digital inputs (embedded)

Address	Variable	Device	Type
DI 00	_IO_EM_DI_00	Start	Green pushbutton, NO
DI 01	_IO_EM_DI_01	Stop	Red pushbutton, NC
DI 02	_IO_EM_DI_02	Reset	Blue pushbutton, NO
DI 03	_IO_EM_DI_03	Jog	Black pushbutton, NO
DI 04	_IO_EM_DI_04	E-Stop	Red mushroom on yellow, NC, latching (click to latch, click to release)
DI 05	_IO_EM_DI_05	Overload Motor 1	Overload contact, NC (click to trip, click to reset)
DI 06	_IO_EM_DI_06	Overload Motor 2	Overload contact, NC
DI 07	_IO_EM_DI_07	Overload Pump	Overload contact, NC
DI 08	_IO_EM_DI_08	Overload Mixer	Overload contact, NC
DI 09	_IO_EM_DI_09	Selector 1	2-position selector
DI 10	_IO_EM_DI_10	Selector 2	2-position selector
DI 11	_IO_EM_DI_11	Selector 3	2-position selector
DI 12	_IO_EM_DI_12	Hand (Hand-Off-Auto)	ON in HAND
DI 13	_IO_EM_DI_13	Auto (Hand-Off-Auto)	ON in AUTO (both OFF = OFF)
DI 14	_IO_EM_DI_14	Limit 1	Limit switch
DI 15	_IO_EM_DI_15	Limit 2	Limit switch
DI 16	_IO_EM_DI_16	Limit 3	Limit switch
DI 17	_IO_EM_DI_17	Limit 4	Limit switch
DI 18	_IO_EM_DI_18	Sensor 1	Photo-eye / proximity
DI 19	_IO_EM_DI_19	Sensor 2	Photo-eye / proximity
DI 20	_IO_EM_DI_20	Level High	Level switch
DI 21	_IO_EM_DI_21	Level Low	Level switch
DI 22	_IO_EM_DI_22	Flow meter	Pulses while switched on, at the rate set on the panel
DI 23	_IO_EM_DI_23	Foot pedal	Pushbutton, NO
DI 24	_IO_EM_DI_24	Remote station Start	Green pushbutton, NO
DI 25	_IO_EM_DI_25	Remote station Stop	Red pushbutton, NC
DI 26	_IO_EM_DI_26	Spare button	Pushbutton (right-click to make it a toggle switch)
DI 27	_IO_EM_DI_27	Spare button	Pushbutton (right-click to make it a toggle switch)

Digital outputs (embedded)

Address	Variable	Device	Type
DO 00	_IO_EM_DO_00	Motor 1	Motor contactor (green)
DO 01	_IO_EM_DO_01	Motor 2 Forward	Motor contactor (green) — interlock with reverse
DO 02	_IO_EM_DO_02	Motor 2 Reverse	Motor contactor (green) — interlock with forward
DO 03	_IO_EM_DO_03	Pump	Motor contactor (green)
DO 04	_IO_EM_DO_04	Mixer	Motor contactor (green)
DO 05	_IO_EM_DO_05	Heater	Contactor (orange)
DO 06	_IO_EM_DO_06	Solenoid Valve 1	Solenoid valve (green)
DO 07	_IO_EM_DO_07	Solenoid Valve 2	Solenoid valve (green)
DO 08	_IO_EM_DO_08	Running	Pilot light, green — normal
DO 09	_IO_EM_DO_09	Stopped	Pilot light, white — neutral
DO 10	_IO_EM_DO_10	Fault	Pilot light, red — emergency / fault
DO 11	_IO_EM_DO_11	Attention	Pilot light, blue — operator action needed (e.g. reset)
DO 12	_IO_EM_DO_12	Warning	Pilot light, amber — abnormal / warning
DO 13	_IO_EM_DO_13	Stack light — Red	Stack light tier
DO 14	_IO_EM_DO_14	Stack light — Amber	Stack light tier
DO 15	_IO_EM_DO_15	Stack light — Green	Stack light tier
DO 16	_IO_EM_DO_16	Stack light — Blue	Stack light tier
DO 17	_IO_EM_DO_17	Spare lamp	Pilot light, white
DO 18	_IO_EM_DO_18	Spare lamp	Pilot light, white
DO 19	_IO_EM_DO_19	Spare lamp	Pilot light, white

** Pilot light colours follow IEC 60204-1 (AS 60204.1).

Modules (Courses 5 and 6)

These sections appear on the panel only when the module is fitted in the Micro800 Simulator. Fit each module in the same slot in both the Simulator and your CCW project — the slot sets the variable names.

Slot	Module	Variables	Panel device
Plug-in 1	2080-IF2	_IO_P1_AI_00 … 01	Analog in: 2 sliders
Plug-in 2	2080-OF2	_IO_P2_AO_00 … 01	Analog out: 2 bar meters
Expansion 1	2085-IQ16	_IO_X1_DI_00 … 15	4-digit BCD thumbwheel
Expansion 2	2085-OB16	_IO_X2_DO_00 … 15	4-digit BCD display

Thumbwheel and display — BCD layout

Each digit (0–9) uses 4 bits with values 1, 2, 4 and 8. The display shows "E" for a digit above 9.

Digit	Thumbwheel inputs	Display outputs
Units (right)	_IO_X1_DI_00 … 03	_IO_X2_DO_00 … 03
Tens	_IO_X1_DI_04 … 07	_IO_X2_DO_04 … 07
Hundreds	_IO_X1_DI_08 … 11	_IO_X2_DO_08 … 11
Thousands (left)	_IO_X1_DI_12 … 15	_IO_X2_DO_12 … 15