

Stand Alone With Digital I/O

Associated files:

- QCI-AN058_StandAloneWithDigital_IO.qcp

Required Software

QuickControl

Rev 4.6 or higher

Overview

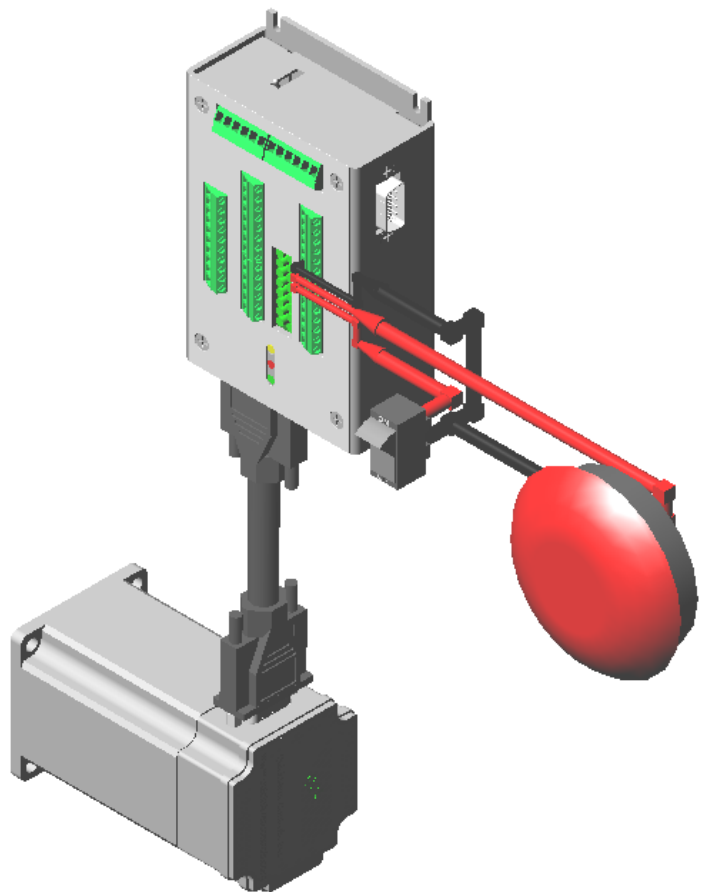
This system uses a toggle switch to select between two programs and momentary pushbutton to start the chosen program. Programs 1 and 2 are merely examples for any program that the user would want to execute.

For an advanced example show how to use 3 inputs to select 7 programs, please see Application Note "QCI-AN015_UsingInputsForProgramSelection"

System Parameters

This system requires:

- 1) 1 x Controllers, Motors and Associated Cables
- 2) 1 x Toggle Switch
- 3) 1 x Momentary Pushbutton



QCI-AN058_StandAloneWithDigital_IO.qcp

Program Selector

The first command waits for I/O #5 (pushbutton) to go LOW, before checking the state of I/O #1 (toggle switch).

If I/O #1 is LOW, Program 1 executes. If I/O #1 is HIGH, Program 2 executes.

Line# Oper	Label	Command
1:REM		QCI-AN058_StandAloneWithDigital_I O.qcp See Application Note QCI-AN058 Stand Alone With Digital IO for information about this program Stand Alone Digital
2:REM		I/O #1 controls the Program Selection I/O #5 controls the Start Function
3:REM	LOOP	Wait for Start button to be pressed
4:WBE		Wait On Bit Edge Until "I/O #5" is LOW/FALSE
5:REM		Load Program 1
6:JOI		Jump On Input 2 line(s) When "I/O #1" is HIGH/TRUE
7:LRP		Load And Run Program: Program = "Program 1"
8:REM		Load Program 2
9:JOI		Jump On Input 2 line(s) When "I/O #1" is LOW/FALSE
10:LRP		Load And Run Program: Program = "Program 2"
11:REM		Loop back to the beginning
12:JMP		Jump to "LOOP"

Line# Oper	Label	Command
1:REM		Program 1 This program is selected by I/O #1 reading LOW.
2:REM		LED 1 = ON
3:SOB		Set "I/O #101"
4:REM		Fast Move
5:MRV		Move 80000 counts @ acc=20000.67 cps/s vel=40000 cps
6:REM		Slow Move
7:MRV		Move -80000 counts @ acc=20000.67 cps/s vel=8000 cps
8:REM		LED 1 = OFF
9:COB		Clear "I/O #101"
10:REM		Return to Program Selector
11:LRP		Load And Run Program: Program = "Program Selector"

Program 1 & Program 2

These basic programs are placeholders for the user's application specific code.

To help distinguish between the two programs, the first program lights the I/O #101 LED and runs a fast move followed by a slow move while the second program lights the I/O #102 LED and runs a slow move followed by a fast move.

Line# Oper	Label	Command
1:REM		Program 2 This program is selected by I/O #1 reading HIGH.
2:REM		LED 2 = ON
3:SOB		Set "I/O #102"
4:REM		Slow Move
5:MRV		Move -80000 counts @ acc=20000.67 cps/s vel=8000 cps
6:REM		Fast Move
7:MRV		Move 80000 counts @ acc=20000.67 cps/s vel=40000 cps
8:REM		LED 2 = OFF
9:COB		Clear "I/O #102"
10:REM		Return to Program Selector
11:LRP		Load And Run Program: Program = "Program Selector"