



Connecting  
Smart Vision Lights  
to  
In-Sight I/O Boards



# Connecting Smart Vision Light to In-Sight I/O Boards

## Overview

The Smart Vision Light connects to 24VDC power supply and then requires a trigger signal. The Smart Vision Light will illuminate for the duration of the trigger pulse. By using a CIO-1400 module this can easily be accomplished. Please note however you CAN run the light in continuous mode if strobing is not wanted for non-OverDrive lights. OverDrive Lights cannot be run in a continuous mode. OverDrive lights have a maximum duration time limit of 125ms.

Simply connect the Smart Vision Light to 24VDC and then connect the trigger signal to the In-Sight I/O board using the attached connection diagrams. Set High Speed Output # 1 to Strobe and the Smart Vision Light will illuminate for the duration you have selected under exposure in the acquisition tool in cell A0. The maximum for OverDrive duration is 125ms.

# Cognex to Smart Light Connections

## CIO-1400 Connections

### LIGHT CONNECTIONS

- Connect +24VDC to SMART LIGHT +24VDC (Brown Wire)
- Connect 0VDC to SMART LIGHT Common (Blue Wire)
- Connect HS OUT1 to SMART LIGHT Trigger (White Wire)
- Connect +24VDC to SMART LIGHT +24VDC (Gray Wire – Analog Intensity Control)

### CIO-1400 CONNECTIONS

- Connect HS OUT1 to SMART LIGHT Trigger (White Wire)

### In-Sight SOFTWARE CONFIGURATION

- Set In-Sight I/O to Expansion Board
- Set HS OUT1 to Strobe
- Set HS OUT1 Details to FALLING EDGE

*Smart Vision Light and camera must share common ground – If separate power supplies are used for the light and camera, grounds must be connected together.*

The image shows two overlapping software configuration windows. The main window is titled "IS\_5400\_JRVD1 - Discrete Output Settings" and contains a table with 12 rows. The "Output Module" dropdown is set to "I/O Expansion Module". The "HSOUT 1" row is highlighted, and its "Type" is "Strobe". An arrow points from this row to a smaller window titled "ism1400\_112ed5 - Line 1 Outp...". This smaller window shows the "Strobe/Light Control Trigger" settings, with "Falling Edge" selected.

Line	Name	Type
0	Line 0	Programmed
1	Line 1	Programmed
2	Line 2	Programmed
3	Line 3	Programmed
4	Line 4	Programmed
5	Line 5	Programmed
6	Line 6	Programmed
7	Line 7	Programmed
8	HSOUT 0	Programmed
9	HSOUT 1	Strobe
10	Green LED	Programmed
11	Red LED	Programmed

Output Module: I/O Expansion Module

Strobe/Light Control Trigger

Rising Edge

Falling Edge

# CIO-1400 I/O Connections

