

We have BFS camera that is going to be the Primary in the diagram shown:  
<https://www.flir.com/support-center/iis/machine-vision/application-note/configuring-synchronized-capture-with-multiple-cameras>

BFS cameras have a 6-pin GPIO. The BFS GPIO has both a non-isolated output and an opto-isolated output. If using the opto-isolated output as in our example below, the primary camera requires a pull-up resistor to strengthen its strobe signal.

**To configure primary and secondary BFS cameras:**

- 1.Connect the primary camera's pin 4 (white wire, opto-isolated output) to each secondary camera's pin 1 (green wire, non-isolated input).
- 2.Connect the primary camera's pin 5 (blue wire, opto-isolated ground) to each secondary camera's pin 6 (brown wire, ground).

**To configure the pull-up resistor needed to strengthen the signal:**

- 1.Connect one end of a 10 kΩ resistor to the primary camera's pin 3 (red wire, 3.3 V output).
- 2.Connect the other end of the resistor to the primary camera's pin 4 (white wire) and to each secondary camera's pin 1 (green wire).
- 3.Connect the primary camera's pin 6 (brown wire) to each secondary camera's pin 6 (brown wire). Note: the secondary camera's pin 6 is already connected to the primary camera's pin 5.

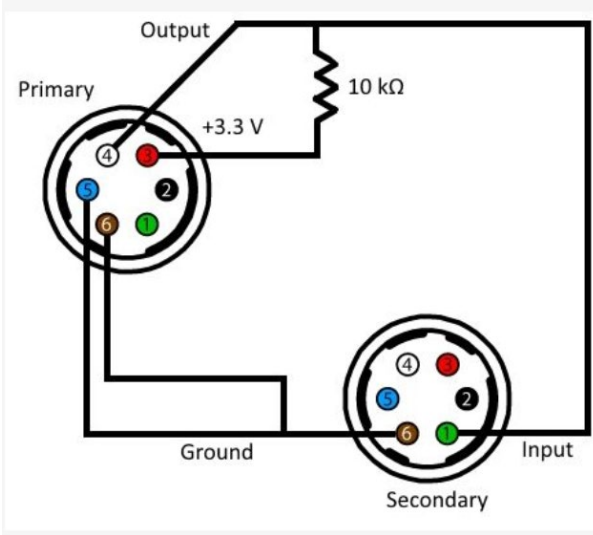


Diagram	Color	Pin	Line	Function	Description
	Green	1	3	V <sub>AUX</sub>	Auxiliary Input Voltage (DC)
	Black	2	0	OPTOIN	Non-isolated Input
	Red	3	2	VOUT	Camera Power Output
	White	4	1	GPIO	Non-isolated Input/Output
	Blue	5	N/A	Opto GND	Opto-isolated Ground
	Brown	6	N/A	GND	Camera Power Ground

We need two 6” long cables.

Cable 1: Primary device is above the red line and secondary below. Trigger out from above the line device and trigger in to below the line device.

Cable 2: Primary device is below the red line and secondary above the red line. Trigger out from below the line and into the device above the line.

DC	45A(13)	
Trigger (either Trigger-in or Trigger-out!)	SMA	Trigger in: V <sub>IN,L</sub> = 0.8V Max. V <sub>IN,H</sub> = 2V Min. V <sub>IN,MAX</sub> = 30V Internal Pull-down: R = 10kΩ
		Trigger out: V <sub>HIGH</sub> = 3.3V ±10% V <sub>LOW</sub> = 0V