

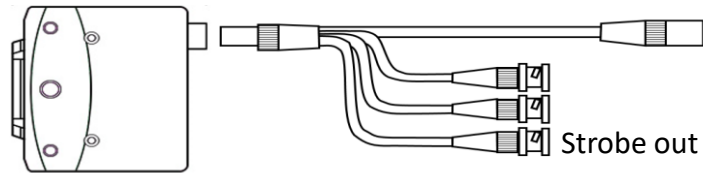
Controlling a strobed light from an i-SPEED 2 series camera

The i-SPEED 2 series cameras can drive a strobe light via their I/O cable, this will enable the light to illuminate during each exposure.

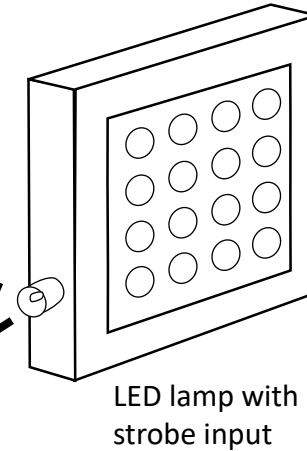
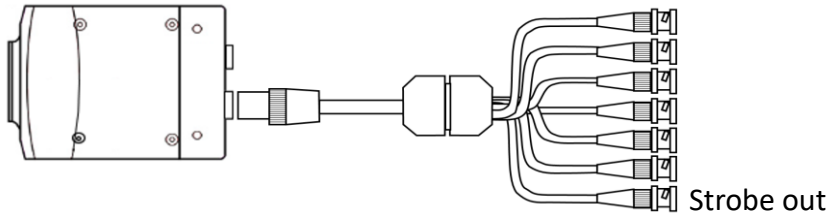
Strobing a light can be done for a few reasons :-

1. Reduce heat in the lamp as the light is only illuminated for the exposure time instead of permanently on.
2. Strobe used to allow the light to drive brighter than if run in constant mode
3. Strobe used to activate a shorter pulse of light than the exposure time

i-SPEED 210 and 220



i-SPEED 211 and 221



Things to consider

Reducing heat

In order to reduce heat then the exposure time should be shorter than a full exposure, the more off time compared to on time will reduce heat (see On Off Ratio below)

Drive lamp brighter

Some lamps have an over drive function that allow the brightness to increase if it is pulsed. The % of overdrive and On time need to be clearly understood and adhered to.

Shorter illumination time

If a very short exposure time is required then the lamp can be used to only illuminate for shorter periods than the camera is capable of. The duration of the illumination is then managed by the light and only started by the rising edge of strobe.

On Off Ratio

Many strobed lights have a defined on to off ratio e.g. if the ratio is 50:1 then the cameras exposure has to be 50 time shorter than the frame time (1/fps)

Lamp only controlled by one camera

Do not connect multiple strobe outs together, if multiple cameras are required then they should be sync'd and one of their strobes used for the lamp drive

Input voltage

The Strobe out of the i-SPEED 2 cameras is TTL compatible and should only be used as a logic drive into the lamp. It should not be used to supply the lamp with drive power.

Caution : As shorter exposure times are selected there is a possibility of illumination to exposure alignment issues.

Relatively long strobe time e.g. 10uS



Relatively short strobe time e.g. 500nS

