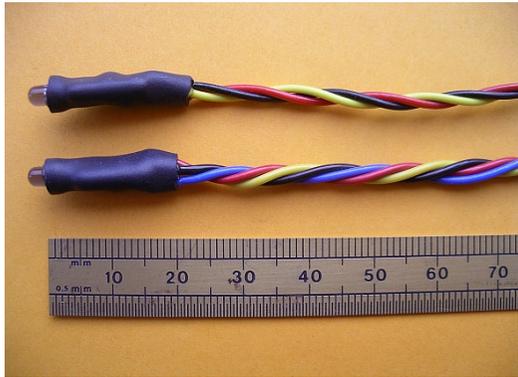




SHUTTER Manual

IR remote controller for still cameras



The zoom (above) and shutter (below)

Servo Operation

Connect the 3pin connector to a standard RC Receiver Servo output:

+ve Red
-ve Black
servo Yellow/white

Locate the LED close to the camera IR receiver, and enable the IR receiver on the camera (see the camera manual).

Movement of the RC Transmitter stick from one extreme to the other will trigger the camera (alternately an AUX channel can be used, see below). If the stick is held in the 'on' position photos will be captured every 5 seconds – Continuous Triggering. Moving the stick progressively to the extreme reduces the repeat rate to 1 second – note that some camera models / set-up / storage card combinations wont record at 1 second and may "catch" every second signal, thus achieving 2 seconds.

RC systems vary widely so for maximum reliability it is recommended that an AUX channel operated by a 2 position switch rather than a joystick is used. Make sure the switch settings are set to either extreme of the RC channel for optimum operation and to set the Continuous Trigger rate.

Switch Operation

Alternately (or additionally – as both will work together) you can short the blue wire to the black wire on the servo connector to trigger the camera. In this mode the servo connector should be used to supply between 3 and 5.5V to the unit. The blue wire can thus be connected to the trigger source(s) of your choice. Continuous Triggering is disabled in this mode.

Timer Operation

The unit can also be used to trigger the camera every 27 seconds, this can be used to prevent some cameras going into "sleep" mode. To enable this make sure the blue wire is shorted to the black wire at power up. After power-up you can leave this connected for Servo Operation, or break the connection and use the Switch Operation as described above.

Specification

Supply Voltage	3 to 5.5V. Range will reduce below 4V. (absolute maximum voltage, 6.5V)
Supply Current	Maximum 20mA pulses when IR LED activated, at other times less than 1mA.
Operating Range	500mm, with unit facing camera receiver, range decreases if located obliquely to receiver.
Servo Pulses	Pulse threshold >1.60mS, nominally 1.1mS is off, 1.7mS is on. Pulses should be less than Supply V + 0.7V.
Continuous Triggering	As long as the shutter input pulse is maintained >1.60mS the repeat rate is 5 seconds, and decreases to 1 second between 1.7 & 1.95mS.
Timer Operation	Between 25 and 28 second repeat shutter.
Weight	4 grams including 250mm wires & connector.

Diagnostics

Make sure that the camera IR is activated. This is often controlled via the shutter or timer control – read the camera manual.

Use a switch between the black and blue wires rather than the servo input, as this will distinguish between servo and IR problems. Use a joy-stick rather than a switch to check operation, connect a servo in place of gentLED to test that the RC system is working properly.

If all else fails, use a digital camera as an IR detector (yes, most digital cameras can detect IR - check it with any remote control). The gentLED will be visible (if a little fainter than the remote) through the camera LCD display.