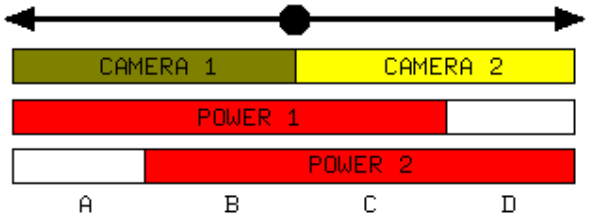
duoCAM Operating Manual

allows one RC servo channel to control power and video from 2 sources

On the right, the longer 3 way servo plug connects to an unused RC Servo channel. This lead uses the normal wiring convention of power and servo signal (yellow).
On the left are the video connections. Output is the short 3 way wire with the two three pin inputs below.
The video uses a similar convention to the servo connector, power is the same but the servo signal is replaced with the video. It is recommended that video wiring be screened, but this short length is normally fine.

Note the wiring required above. Whilst the video signals come from right to left selecting between channel 1 and 2, the power for the cameras originates on the left and is also controlled by the duoCAM to 1 and 2.

The power supply to power the duoCAM logic comes from the RC receiver, the supply to power the cameras is switched from the video transmitter. They can be the same supply or different supplies, however they both must be in the range 3 to 6volts, and the difference between them must be less than 2 volts.



Control of the video & power is by moving the joystick as shown in the diagram left. A center-biased joystick can be used if trimmed to B or C.

Note that by choosing the stick position carefully – or programming the end points in more advanced transmitters - a number of effects can be achieved.

- Slow movement from end to end switches of power to the unused camera (saving power) but both are on when the picture switches.
- By limiting the end-stops it is possible to inhibit the removal of power to one, or both, cameras should this be desired.

Reference to the previous diagram:

A. 1.10mS: Camera 1 ON, and power only to camera 1.
B. 1.35mS: Camera 1 ON, but power applied to Camera 1 and 2 (could be part of preparation to use Camera 2).
C. 1.65mS: Camera 2 ON, power applied to both cameras.
D. 1.90mS: Camera 2 ON, and power only to camera 2.

Specification

Supply Voltage	3 to 6V. If separate the difference between servo and video supplies must be <2volts. (Absolute maximum voltage, 6.5V)
Supply Current	Maximum 2mA from the servo supply.
Switching Current	Maximum 500mA through either switch.
Servo Pulses	Pulse thresholds for power switching and video switching are nominally 1.2, 1.5 and 1.8mS. Pulses should be less than Supply V + 0.7V.
Video signals	Composite 1Vpp, between -0.5V and 2V.
Weight	X grams including wires & connectors.

Diagnostics

Use a servo on the RC Receiver output to ensure adequate servo pulses. The servo should move through 90degrees with full stick travel.

Wire the cameras direct to the video to ensure correct operation. Next power the cameras separately so only the video switch is being tested. This will help isolate the problem area.