

It's not just voltages, there is a serial communication protocol being used.

Pinout and pin functions:

Left to right, looking at the front of the body:

1. VBAT
2. P-GND 3. P-GND (pins 2 & 3 are common on the lens)
4. VDD
5. DCL
6. DLC
7. LCLK
8. D_GND

Pin Functions

VBAT - Motor power

P_GND - Motor power ground

VDD - Logic circuitry power

D_GND - Logic circuitry ground

DCL - Data from body to lens

DLC - Data from lens to body

LCLK - Clock

Data protocol: Motorola SPI; 8 bit serial; Such as the protocol used with the 68HC05 chip.

You will need access to the pins to experiment. Hack up the cheapest body you can find, such as a broken Rebel or whatever. Good luck, experiment on a cheap lens first!

Canon EF mount pins^{[1][7]}

Name	Function	Notes
VBat	+6 volts to power internal lens focus motors	
P-Gnd	Power ground	
P-Gnd		
VDD	+5.5 volts Digital logic power	
DCL	Data from camera to the lens (MOSI)	Present on all EOS bodies and lenses
DLC	Data from the lens to the camera (MISO)	
LCLK	Camera body generated clock signal (SCLK, CPOL=1)	
D-GND	Digital logic ground	
COM1	Teleconverter common ^{[8][9][10]}	
EXT0	Short to COM1 for 'Life Size Converter' and x1.4 teleconverter	Only on most L-series and some macro lenses
EXT1		

