

PCB Component Label	Component Name/ Value	Insert either way?	Notes	
Power	DC Barrel Jack Connector	No	2.1mm centre pole diameter	
D1	Schottky Diode 1A 40v	No	Diode OR power supply select	
D2	Schottky Diode 1A 40v	No	Diode OR power supply select	
DB9	Serial DB9 right angle pcb connector	No	Carries motor, camera and limit switch signals out of the board	
C1	Electrolytic Capacitor 100uF 16v	No	Power supply filtering	
C2	Electrolytic Capacitor 100uF 16v	No	Power supply filtering	
C3	Ceramic Capacitor 0.1uF	Yes	Reset pin	
C4	Ceramic Capacitor 22pf	Yes	Crystal	
C5	Ceramic Capacitor 22pf	Yes	Crystal	
Reg	5v Linear Regulator	No	Voltage regulator	
Trim	10k Trimpot	Yes	LCD contrast control	
R1	220 Ohm 1/4 Watt Resistor LCD	Yes	LCD backlight	
R2	220 Ohm 1/4 Watt Resistor	Yes	4n35 resistor	
R3	220 Ohm 1/4 Watt Resistor	Yes	4n35 resistor	
R4	1.5K Ohm 1/4 Watt Resistor	Yes	Reset pull-up resistor	
Opt1	4n35 Opto-isolator	No	Camera signal isolation	
Opt2	4n35 Opto-isolator	No	Camera signal isolation	
ATMega	ATMega328 + DIP socket	No	The MCU	
Crystal	16Mhz Crystal	Yes	MCU clock	
Easydriver	Easydriver v4.4 Stepper	No	Motor driver	
Btn 1	Mini push button switch	Yes	Manual control - forward	
Btn 2	Mini push button switch	Yes	Manual control - backward	
Btn 3	Push button switch 12mm	Yes	Main function button	
Encoder	Standard rotary encoder with push button switch	No	Menu navigation and setting changes	
DIP	DIP switch (2 channel)	No	For pulling Easydriver MS1 and MS2 pins high or low	
(not labelled)	Male pcb header x 45	Yes	About 45 male pcb headers needed throughout the board - standard 2.54 pitch	