

PCB Component Label	Component Name/ Value	Notes
Power	DC Barrel Jack Connector	2.1mm centre pole diameter
D1	Schottky Diode 1A 40v	Diode OR power supply select
D2	Schottky Diode 1A 40v	Diode OR power supply select
DB9	Serial DB9 right angle pcb connector	Carries motor, camera and limit switch signals out of the board
C1	Electrolytic Capacitor 100uF 16v	Power supply filtering
C2	Electrolytic Capacitor 100uF 16v	Power supply filtering
C3	Ceramic Capacitor 0.1uF	Reset pin
C4	Ceramic Capacitor 22pf	Crystal
C5	Ceramic Capacitor 22pf	Crystal
Reg	5v Linear Regulator	Voltage regulator
Trim	10k Trimpot	LCD contrast control
R1	220K Ohm 1/4 Watt Resistor	LCD backlight
R2	220K Ohm 1/4 Watt Resistor	4n35 resistor
R3	220K Ohm 1/4 Watt Resistor	4n35 resistor
R4	1.5K Ohm 1/4 Watt Resistor	Reset pull-up resistor
Opt1	4n35 Opto-isolator	Camera signal isolation
Opt2	4n35 Opto-isolator	Camera signal isolation
ATMega	ATMega328 + DIP socket	The MCU
Crystal	16Mhz Crystal	MCU clock
Easydriver	Easydriver v4.4	Stepper motor driver
Btn 1	Mini push button switch	Manual control - forward
Btn 2	Mini push button switch	Manual control - forward
Btn 3	Push button switch 12mm	Main function button
Encoder	Standard rotary encoder with push button switch	Menu navigation and setting changes
DIP	DIP switch (2 channel)	For pulling Easydriver MS1 and MS2 pins high or low
(not labelled)	Male pcb header x 45	About 45 male pcb headers needed throughout the board - standard 2.54 pitch