

Elegoo Limit Switch Kit

USER MANUAL Version 1.4 • October 2023



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Part 1 Packing List



Y Limit Cable



X Limit Cable





Screw M3x12mm x1 Screw M4x10mm x4 Cable Clip x10







Front Y Limit

Rear Y Limit





Step 1

Parts Required: Instructions



Review cable routing, limit locations, and controller connections

Y Limit Cable has a Short and Long Section

Limit Cable Routing & Limit Locations



Controller Limit Cable Connection Locations

Step 2

Parts Required: -----Front Y Limit

- -----M4x10mm x2
- Remove two frame screws -
- Install Front Y limit using (2) M4x10mm screws
- Connect Y Limit switch cable



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Step 3

Parts Required:

- -----Rear Y Limit
- -----M4x10mm x2
- Remove (2) frame screws
- Install Rear Y limit using (2) M4x10mm screws
- Connect Y Limit switch cable



(DO)

Step 4

Parts Required: ------Right X Limit



- Remove two flame sensor screws ~
- Install Right X limit using original screws
- Connect X Limit switch cable



Step 5

Parts Required: -----Left X Limit -----M3x12 Screw

- Remove filter box screw (just the one).
- Install Left X limit using M3x12 screw
 Be sure leg is firmly in channel
- Connect X Limit switch cable



Step 6

Parts Required:

-----Cable Clip x10

- Use cable clips to secure limit cables as needed
- X limit cable can be joined with module cable from controller to gantry

Part 3 Lightburn Setup

Step 1

Click Edit, then Machine Settings

)	Undo Clear selection	Ctrl+Z	DO			°×	192		
•	Redo	Ctrl+Shift+Z	00				i		Thior
3	Select All	Ctrl+A	00	Rotate	e 0.00	\$ mm	Font	AR ESSI	ENCE
3	Invert Selection	Ctrl+Shift+I	% QC	9				Bold	
6-	Cut	Ctrl+X	120	160	200	240	11112	80	320
6	Сору	Ctrl+C							
6	Duplicate	Ctrl+D							
ê	Paste	Ctrl+V							
	Paste in place	Alt+V							
Ì	Delete								
	C	C1 C1 (0 C							
	Convert to Path	Ctrl+Shift+C							
	Convert to Bitmap	Ctrl+Shift+B							
	Close Path								
	Close selected paths with tolerar	ice							
	Auto-Join selected shapes	Alt+J							
	Optimize selected shapes	Alt+Shift+O							
	Delete Duplicates	Alt+D							
	Select open shapes								
	Select open shapes set to fill								
	Select all shapes in current cut la	ver							
	Select contained shapes	y ci							
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₽° ★	Image options	•							
	Settings								
	Device Settings								
	Machine Settings								
	a second	6							
	Debug Drawing		120	160		240		80	13201

Part 3 Lightburn Setup

Step 2

In Machine Settings, toggle Hard Limits and Home Cycling to True

Property	Value	
✓ General config		
Status: Position reporting (\$10)	Machine Position	
Status: Show buffer data (\$10)	True	
Junction deviation (mm) (\$11)	0.0100	
Arc tolerance (mm) (\$12)	0.0020	
Report inches (\$13)	False	
 Homing and Limits 		
Soft limits (\$20)	False	
Hard limits (\$21)	True	
Homing cycle (\$22)	True	
Homing feed rate (slow) (mm/min) (\$24)	1,000.00	
Homing seek rate (fast) (mm/min) (\$25)	3,000.00	
Homing debounce (ms) (\$26)	250	
Homing pull-off (mm) (\$27)	2.000	
Max spindle speed (RPM), S-Value max (\$30)	1000	
Min spindle speed (RPM), S-Value min (\$31)	0	
Laser mode enable (\$32)	True	
✓ Outputs setup		
Step pulse (microseconds) (\$0)	10	
Step idle delay (ms) (\$1)	25	
Step enable invert (\$4)	False	
Limit pins invert (\$5)	True	
Probe pin invert (\$6)	True	

6	Machine Settings - LightBur	n 1.2.04		?	×	1	Align X Middle	e 🗸 No	
Pro	perty		Value		^	-	Align Y Middle	· ~ 0ff	
~	General config					j(C	amera Control		
	Status: Position reporting (\$10)	Machine Positio	n				Camera	
	Status: Show buffer data (\$	10)	True				Update Over	rlay	
	Junction deviation (mm) (S	11)	0.0100			1] Fade		
	Arc tolerance (mm) (\$12)		0.0020] Show		
	Report inches (\$13)		False				5 SHOW		
~	Homing and Limits					-			
	Soft limits (\$20)		False			C	onsole		
	Hard limits (\$21)		True) \$	105 = 100.000		
	Homing cycle (\$22)		True			ŝ	111=10000.000		
	Homing feed rate (slow) (n	nm/min) (\$24)	1.000.00			\$	112=2000.000		
	Homing seek rate (fast) (m	m/min) (\$25)	3,000.00			\$	114=1000.000		
	Homing debounce (ms) (\$	26)	250			\$	115=1000.000		
	Homing pull-off (mm) (\$2	7)	2.000) \$	121=800.000		
	Max spindle speed (RPM),	1000 0			\$	\$122=250.000 \$123=200.000 \$124=200.000			
	Min spindle speed (RPM), S				Ş				
	Laser mode enable (\$32)		True) \$	\$125=200.000		
~	Outputs setup		and the second second			s.	131=450.000		
	Step pulse (microseconds)	(\$0)	10			5	132=0.000		
	Step idle delay (ms) (\$1)		25			\$	134=300.000		
	Step enable invert (\$4)		False			\$	135=300.000		
	Limit pins invert (\$5)		True			3 0	C		
	Probe pin invert (\$6)		True		~	(t	/pe commands h	iere)	
Con	troller settings read successful	у				0	Focus		
	Save to File	Calibrate Axis		Read			Macro3		
	Load from File	Load from Back	q	Write			Layers	Laser	
			OK	Can	cel				

Step 3

Click Write button

Click OK button

Power Phecda off and then back on

Part 3 Lightburn Setup

Troubleshooting

Machine homes to rear left corner

In Machine Settings, under **Output Setup** toggle **Y Homing Direction Invert** to the opposite of its current setting

Click Write button

Click OK button

Power Phecda off and then back on

Property		Value		_
Step pulse (microseconds) ((\$0)	10		
Step idle delay (ms) (\$1)	(40)	25		
Step enable invert (\$4)		False		
Limit pins invert (\$5)		True		
Probe pin invert (\$6)		True		
X Step pin invert (\$2)		False		
X Direction pin invert (\$3)		C True		
X Homing direction invert (\$23)		True		
X Steps per mm (\$100)		100.000		
X Max rate (mm/min) (\$110)		25,000.000		
X Accleration (mm/sec^2) (\$120)	1,500.000		
X Max travel (mm) (\$130)		432.000		
Y Step pin invert (\$2)		False		
Y Direction pin invert (\$3)		True		
Y Homing direction invert (\$23)	True		
Y Steps per mm (\$101)		100.000		
Y Max rate (mm/min) (\$111)		25,000.000		
Y Accleration (mm/sec^2) (\$121)		800.000		
Y Max travel (mm) (\$131)		406.000		
Z Step pin invert (\$2)		False		
Z Direction pin invert (\$3)		🚺 True		
Z Homing direction invert (\$23)		False		
Controller settings read successfully		100.000		
Save to File	C	Calibrate Axis	Read	
Load from File	Loa	d from Backup	Write	

Machine Settings - LightB	urn 1.2.04		?	×	Align X Middle V		
Property		Value		^	Align Y Middle V C		
 General config 					Camera Control		
Status: Position reporting	(\$10)	Machine Pos	ition		Came		
Status: Show buffer data	(\$10)	True			Update Overlay		
Junction deviation (mm)	(\$11)	0.0100			C Fade		
Arc tolerance (mm) (\$12)		0.0020			C Show		
Report inches (\$13)		False					
 Homing and Limits 							
Soft limits (\$20)		False			Console		
Hard limits (\$21)		True True 1,000.00 3,000.00 250			\$105=100.000		
Homing cycle (\$22)					\$111=10000.000		
Homing feed rate (slow)	(mm/min) (\$24)				\$112=2000.000		
Homing seek rate (fast) (mm/min) (\$25)				\$114=1000.000		
Homing debounce (ms)	(\$26)				\$115=1000.000		
Homing pull-off (mm) (\$	27)	2.000			\$121=800.000		
Max spindle speed (RPM)	, S-Value max (\$30)	0 1000			\$122=250.000		
Min spindle speed (RPM)	, S-Value min (\$31)				\$124=200.000		
Laser mode enable (\$32)	True			\$125=200.000			
Outputs setup					\$131=450.000		
Step pulse (microsecond	10 25 False True True			\$132=0.000			
Step idle delay (ms) (\$1)				\$134=300.000			
Step enable invert (\$4)				\$135=300.000			
Limit pins invert (\$5) Probe pin invert (\$6)							
				(type commands here)			
ontroller settings read successf	ully				Focus		
Save to File	Calibrate Axis	Read			Macro3		
Load from File	Load from Back	qu	Write		Layers Laser		