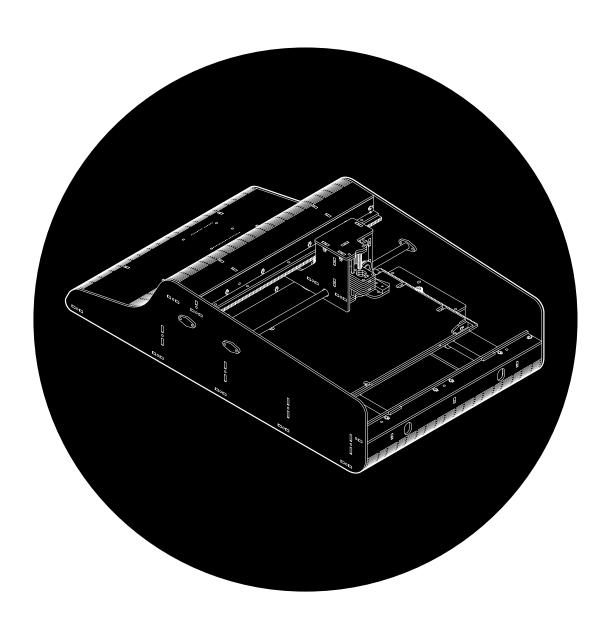
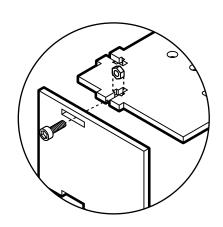
lettera

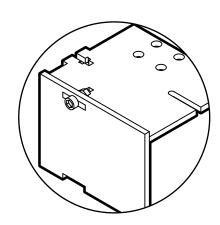


XY plotter
Special thanks to Officine Arduino, Fablab Torino
Designed by Pietro Leoni



CONNECTIONS AND COMPONENTS





Many of the connections in this model are based on T joints, this allows to easily remove and replace individual parts.

#PARTS LIST

$\overline{}$	$\overline{}$	51.1			_	,
(#	ŧ1)	Phidgets 3314_	_0 - 950g-cm	Unipolar	Stepper.	(x2)

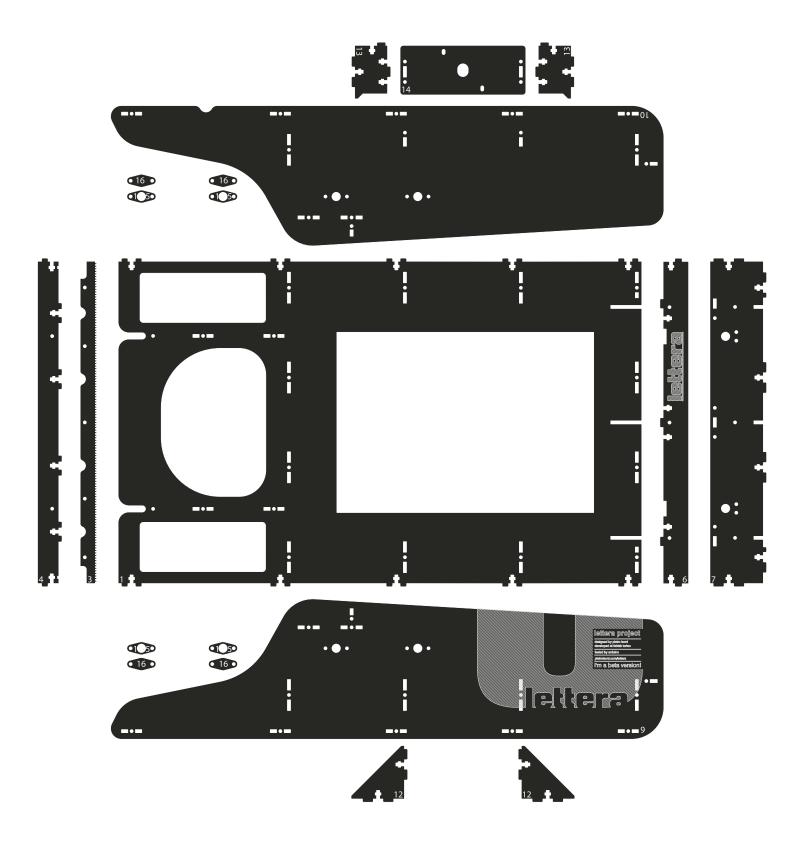
(;	#2	Seed Studio	general	shaft joint -p3.	(x2)
----	----	-------------	---------	------------------	------

- (#3) 3mm steel bar. (x2)
- (#4) Spring, inner diameter >3mm.
- $\binom{\#5}{\text{LM8UU}}$ linear bearings. (x7)
- $\binom{\#6}{}$ Hitech standard servo, able to operate at 5V.
- (#7) Microswitch. (x2)
- (x2) Cylindrical profile. 3,1mm internal diameter, 4mm outer diameter. Length 21mm.
- (#9) 8mm steel bar. (x2)
- (#10) 8mm steel bar. (x2)



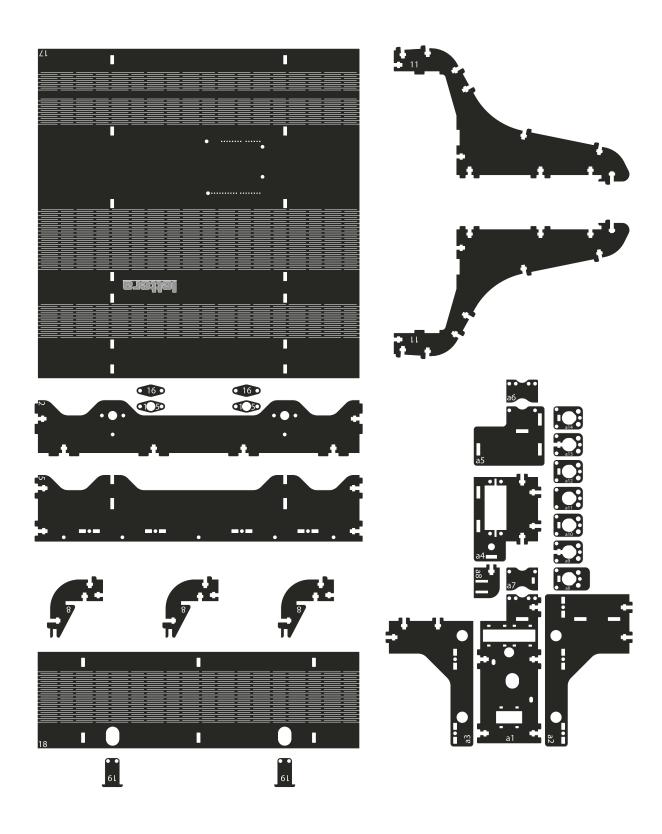
PLANS

Material thickness for lasercut components: 3mm.



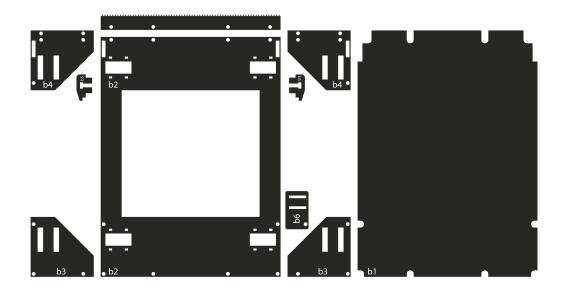


PLANS

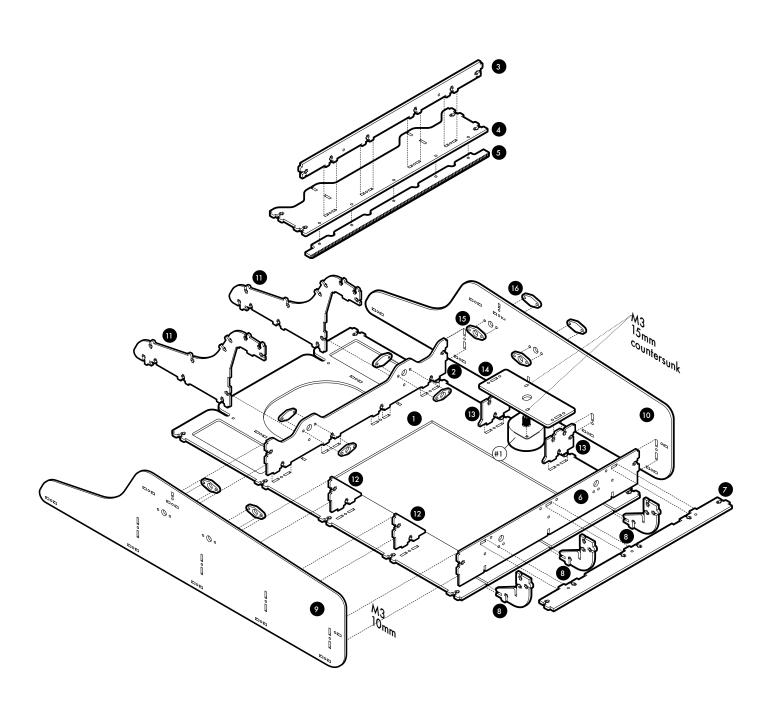




PLANS

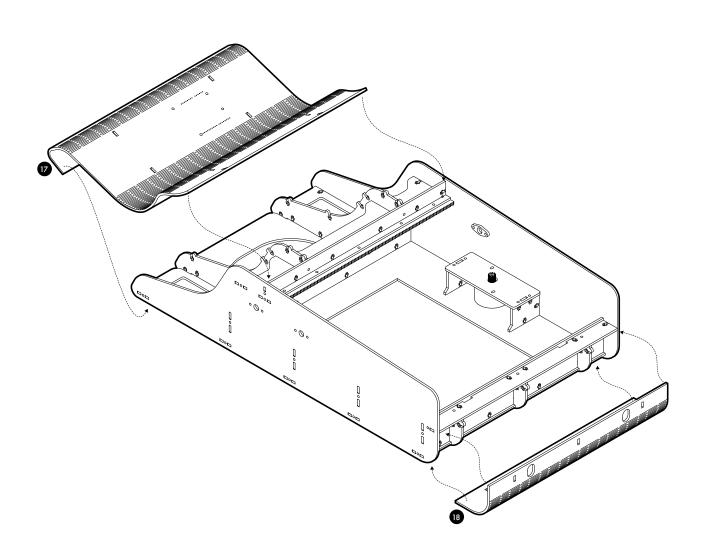


CHASSIS



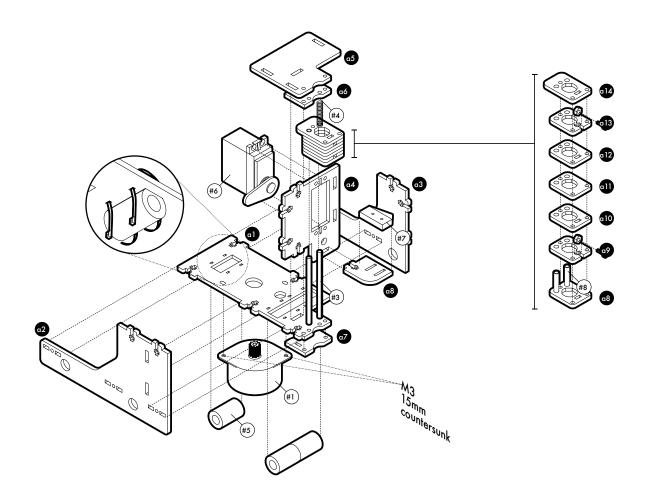


CHASSIS



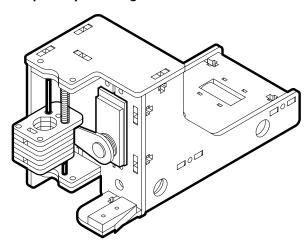


PRINTHEAD



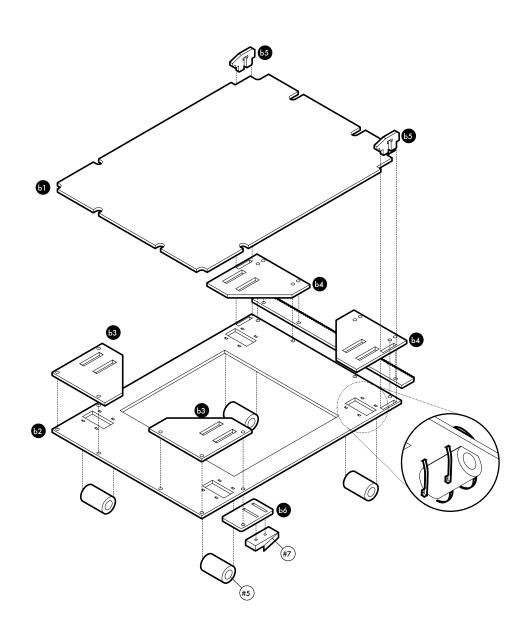
Fit the bracket so that, with the servo at 0 degrees, the pen is lowered.

The actuator will lift the pen by turning it clockwise.



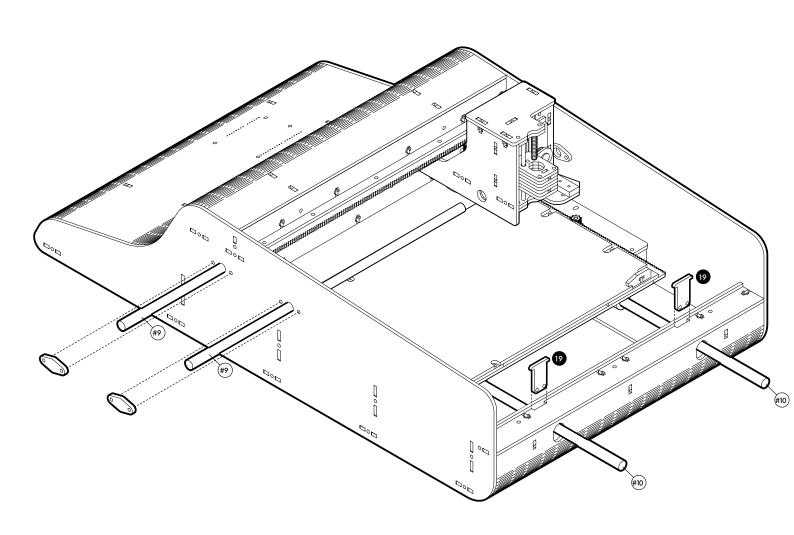


PRINTING PLANE



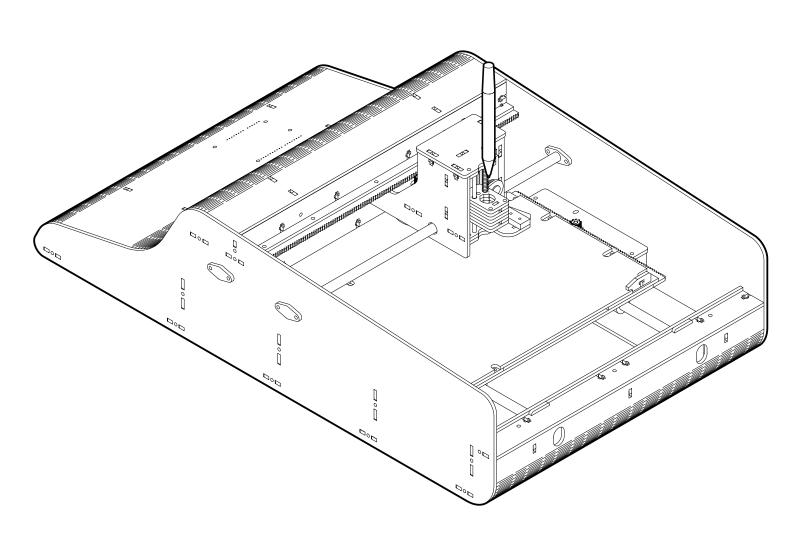


AXES





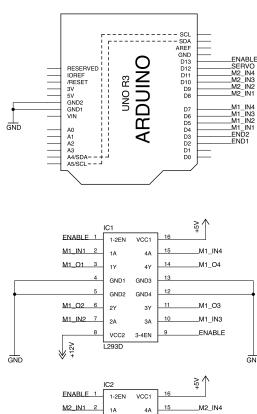
PEN

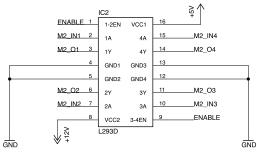


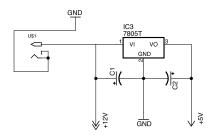


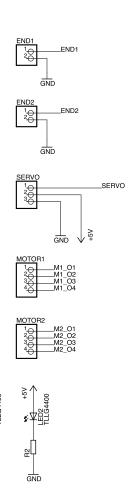
HARDWARE

schematics







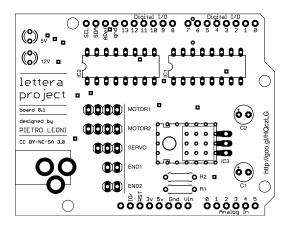




HARDWARE

You can realize the electronics on an Arduino ProtoShield (same footprint) or order this shield osh park:

goo.gl/SOSn1k



Parts value

C1 470uf capacitor C2 100 nf capacitor END1 2pin male header END2 2pin male header L293D IC1 IC2 L293D 7805T IC3 LED 3mm LED1 LED 3mm LED2 MOTOR1 4pin male header MOTOR2 4pin male header **R**1 1k resistor **R2** 1k resistor **SERVO** 3pin male header **12 V DC IN** coaxial power connector

WIRING

