

3D Printed Parts:

Part	Description	File Name	Quantity
Standard support	Support used for the right side of the plane	standard_support_3d_	2
Standard support for sensor	Support used for the right side of the plane; has slot for limit switches		
Support for pulley	Support that includes a slot for the pulley; used on the left side of the plane	pulley_support_3d	1
Support for motor and pulley	Support for mounting the motor and pulley; used on the left side of the plane	motor_pulley_support_3d_2	1
Vertical bar with motor	Bar used to mount two bearings and motor; allows for translational motion in the y-direction; used on the right side of the plane	vert_bar_3d	1
Vertical bar with timing belt teeth	Bar used to mount two bearings; has etchings complementary to the teeth of the timing belt; used on the left side of the plane	vert_bar_belt_3d	1
Plate support	Support that is used to mount 4 bearings; supports microtiter plates; allows for horizontal translation	plate_support_3d	1
Base support	Support that mounts the rods for the upper layer of the plane	base_support_3d	4
Nozzle	Support for the nozzle mounted to the upper layer of the plane	nozzle	1
Pulley rod	Support for the pulley on the horizontal axis	pulley_rod	1

Ordered Parts:

Part	Description	Link	Quantity
Stepper motor	Bipolar stepper motors that run at 200 steps/rev	https://www.pololu.com/product/1209	2
304 Stainless Steel Rods	Rods for translational motion (3 feet long)	https://www.mcmaster.com/#1272t38/=1d3gbbf	3
Timing Belt + Pulley Set	Pulley and belt system needed for translation	https://www.amazon.com/dp/B074TYQLTB/?coliid=IBIYVF B1SR09R&colid=3I0ROTW2KSDDED&psc=0&ref=lv_ov_lig_dp_it	1
Linear Ball Bearings	Bearings for linear motion	https://www.amazon.com/dp/B01D8J4BZ4/?coliid=IWR9TH3A2EX4Y&colid=3I0ROTW2KSDDED&psc=0&ref=lv_ov_lig_dp_it	2
Wood	Used to mount all parts (should be at least 300 mm x 400 mm)	Any type will do	1
Timing Belt (A 6R51M264060)	Timing belt for vertical axis	http://shop.sdp-si.com/catalog/product/?id=A%206R51M264060	1
Timing Belt (A 6R51M348060)	Timing belt for horizontal axis	http://shop.sdp-si.com/catalog/product/?id=A%206R51M348060	1
Acrylic sheet	Acrylic sheet for the upper layer	https://www.mcmaster.com/8589k12	1