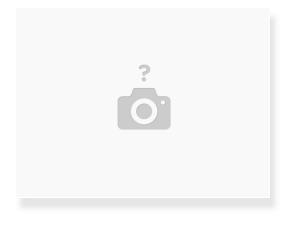


07. Full Build Complilation

Written By: Quinn Colville

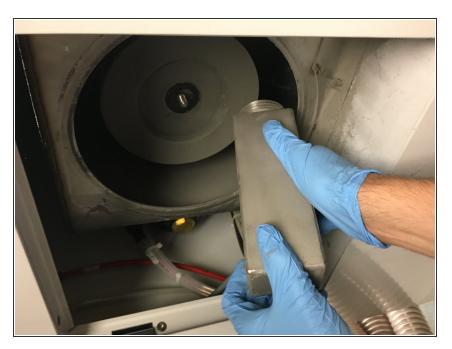


Step 1 — Clean the Build Chamber



• Use paint brushes, scrapers, and/or scoops to push all powder into the (2) canisters on the right

Step 2 — Load PX Box Hopper



- Load the PX Box with the dirty powder canisters
- Run the powder recycling process

Step 3 — Load & Level New Powder



- Load new powder into the supply
- Level the powder supply using the bottom of the powder canister
- Place the (2) now empty canisters in the right compartment

Step 4 — Clean Build Chamber...Again



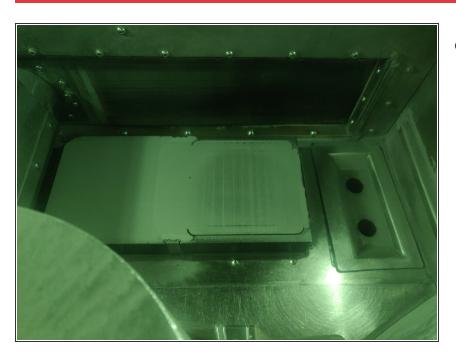
• Clean any residual powder by pushing into the (2) empty canisters on the right

Step 5 — Prepare & Load Build Plate



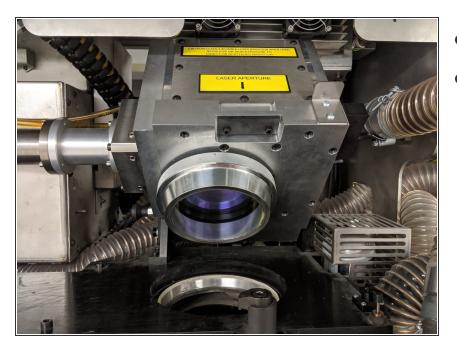
- Clean and attach build plate to base
- Load build plate with the grain direction moving towards the engraved FRONT

Step 6 — Run Zero-Sinter & Preparation Layer



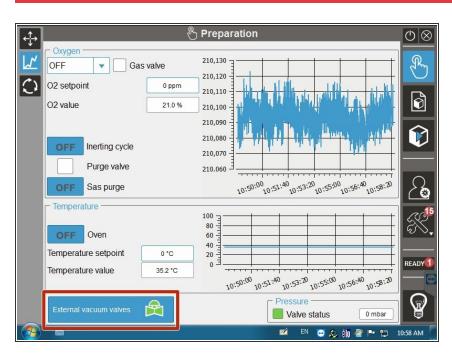
- Run both zero-sintering search and preparation layer
 - Make sure the first layer has uniform coverage without any noticeable patterns or clumps

Step 7 — Clean Lens & Check Water

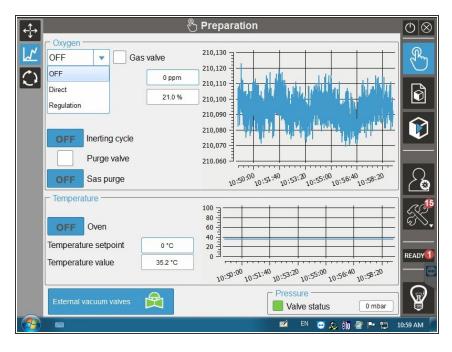


- Check the water level
- Clean the lens

Step 8 — Close Valves, Lock Doors & Vacuum Up



- Make sure to close the valves and lock the glove ports prior to argon purge
- Make sure the vacuum is locked in place inside the machine



Step 9 — Inert Build Environment

- Turn on the argon and run the purge cycle
- Make sure to burp the trap at ~2000 ppm

Step 10 — Load File

🗟 Manufact	urin	g file	;		
Loaded file : dog_bone			Avail	able layers :	718
Objects Layers Information			-		
Objects number 10 Clones number 0	₽	Ξ		 All Objects Clones 	✓ ×
Objects	Clo	nes Id	Z min	Z max	Vo 📤
- 🗹 dog_bone_smaller	0	0	3.00 mm	21.54 mm	21
- 🔽 dog_bone_smaller_Support - Blade	0	1	0.00 mm	9.56 mm	25
- 🔽 dog_bone_smaller (#1)	0	2	3.00 mm	21.54 mm	21
- dog_bone_smaller (#1)_Support - Blade	0	3	0.00 mm	9.56 mm	25
– 🗹 dog_bone_smaller (#2)	0	4	3.00 mm	21.54 mm	21
- dog_bone_smaller (#2)_Support - Blade	0	5	0.00 mm	9.56 mm	25
- dog_bone_smaller (#3)	0	6	3.00 mm	21.54 mm	21 -
718	в	+	All	Build layers	
			🗹 EN	😑 💫 ilo 🔮	P• 10

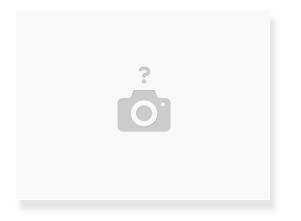
 Load the sliced file and BUILD LAYERS

Step 11 — Manual Layering & Start

	(Manufacturing	\odot
- Progress	height		<u></u>
0.00 mm Total of ma Current 04h51m12s	/ 21.54 mm anufacturing Estimated / 04h19m44s	Atmosphere Gas OFF O2 value 21.0 % O2 setpoint 1000 ppm	
Layering	% Sintering	Enclosure pressure 0 mbar Enclosure temperature 35.6 °C	$\widehat{\mathbb{V}}$
717 00m11s 02h10m54s	717 00m04s 02h16m18s	Turbine Setpoint 0 % Feedback	
X Start of cycle End of cycle	SinteringLayering	Part Clamping Available powder 58.20 mm Zero sintering 106.20 mm Loaded material	READY ¹⁵
Layer 0 to 0		Laser/Optic Defocus Laser power setpoint 0 %	
💮 📼		📫 EN 💿 🔊 🗓 🔐 🍽 🛄	12:29 PM

• Layer and sinter 0-4 manually to make sure everything looks good

Step 12 — Save Build Report & Argon Off



• Make sure to open internal valves

Step 13 — Harvest & Clean Part



- Slowly excavate part making sure to not overfill powder canisters
- Remove ALL powder from part and build plate

Step 14 — Remove Part Support



Use bandsaw