Title   Trident_1-9_complementary_3dPartsBuild_doco (proposed future file)
File name Voron_1.9_3dprinting_guide.pdf (1.9 – really? You put a . in a file)
Date   2021-12-13 (Unofficial version number)
Copy-rite None. Free domain. Be free. Fly my pretties. FLY!
Warranty   None. Use at own risk. For entertainment purposes only.
Author   Stephen George (Original idea and creation)

<u>**Introduction**</u>
Use this guide to print the parts as you need them, possibly the night before.

<u>**Print parameters**</u> (More details on page 4 of official Trident manual)
Material ABS, Infill gyroid, Infill 40% Layer_height 0.2mm, Wall_count 4, Nossil 4mm, Top/bottom layers 5

<u>**The Rules**</u>
The first time a picture of the part is shown in the official instructions it should be added to the list below, along with the page number. After that it's ignored as you should have already printed it.

<u>**The Machine the parts are for**</u>
Building Formbot kit, 250 x 250, Direct feed, Dragon High Flow, 3 hole cable chain.

<u>**Keeping track**</u>
The Printed □ tick box in the page number box is for your use.

It allows you to print out this pdf (without this header page) and tick off the parts as they come off the printer. Hopefully you won't double print when you don't want to.

<u>**Future Improvements to this doc**</u>
3) Add time of print using a Prusa mini as a guide.
4) Add AA (anti-aliasing) to images using gimp and scripts

NB thanks for all the great ideas. Even if I have not had time to implement them all. They are much appreciated. Any other ideas or comments please visit old.reddit.com/r/VORONDesign

<u>**Source files**</u>
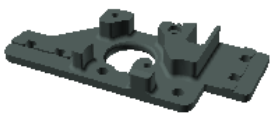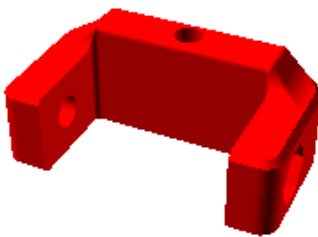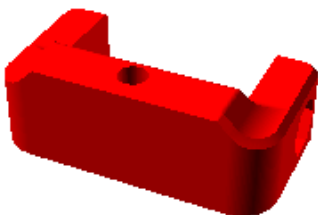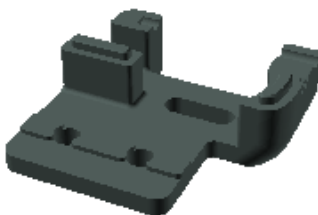https://github.com/LesserSpottedAustralianSquirel/voron_trident_pic
This include this .pdf and the source files
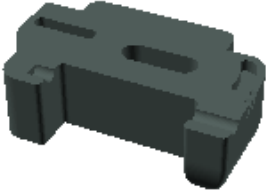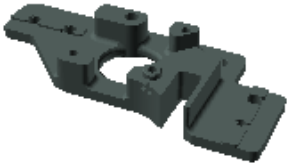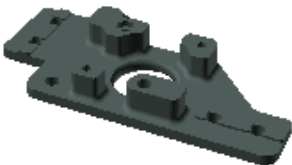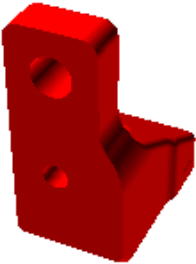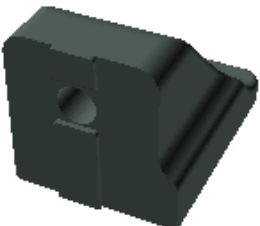
<u>**Notes**</u>
This is fan base documentation. The official document take precedence in any conflict of information or technical detail.
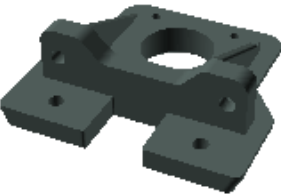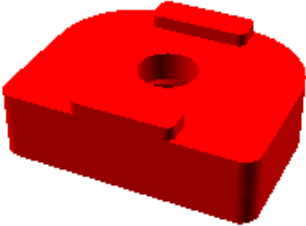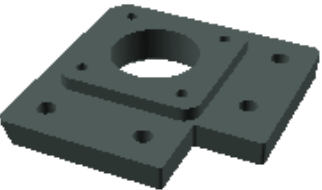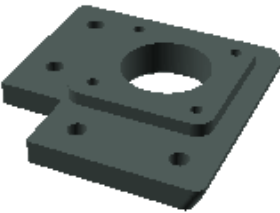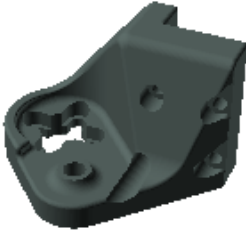
<u>**Silly quote**</u>
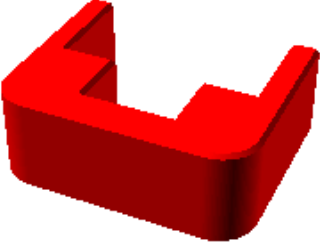May your Voron print head always fly "straight and true", never tire and crash the bed for a sleep.

Picture	Details	Page	Comment
	Directory STLs/Gantry/AB_Drive_Units **Filename** a_drive_frame_upper.stl **Manual name** A drive	26 Done? ☐ Yes	And so it begins
	Directory STLs/Gantry/Front_Idlers **Filename** [a]_tensioner_left.stl **Manual name** none found	27 Done? ☐ Yes	NB Page 27 "Look for asterix next to the part. It indicates that this is an accent part." Except * is not a good character in a file name, so they changed it to Files starting with [a]
	Directory STLs/Gantry/Front_Idlers **Filename** [a]_tensioner_right.stl **Manual name** none found	27 Done? ☐ Yes	Joke alert Don't print part rm * If you have no idea what I am talking about please ignore this note
	Directory STLs/Gantry/Front_Idlers **Filename** front_idler_a_x2.stl **Manual name** A idler	28 Done? ☐ Yes	x2

	Directory STLs/Gantry/Front_Idlers **Filename** front_idler_b_x2.stl **Manual name** none found	28 Done? ☐ Yes	x2
	Directory STLs/Gantry/AB_Drive_Units **Filename** a_drive_frame_lower.stl **Manual name** A drive	34 Done? ☐ Yes	
	Directory STLs/Tools **Filename** AB_pulley_jig.stl **Manual name** none found	35 Done? ☐ Yes	tool
	Directory STLs/Gantry/AB_Drive_Units **Filename** b_drive_frame_lower.stl **Manual name** B drive	37 Done? ☐ Yes	

	Directory STLs/Gantry/AB_Drive_Units **Filename** b_drive_frame_upper.stl **Manual name** B drive	37 Done? ☐ Yes	
No Pic	T-Nuts M5 AKA "Roll in" T nuts	44 Done? ☐ Yes	They don't have to go into the end. They can be "rolled in". No need to disassemble frame.
No Pic	Warning Lone M3 on page Pretending to be M5	44 Done? ☐ Yes	Beware Of Of the lone lone M3 T-nut. Which I read as an M5 and had to get it back out (frame disassembled)
	Directory STLs/Gantry/AB_Drive_Units **Filename** [a]_y_endstop_bumper.stl **Manual name** End stop	50 Done? ☐ Yes	
	Directory STLs/Z_Assembly **Filename** z_rear_extrusionbracket_left.stl **Manual name** Rear brace	53 Done? ☐ Yes	
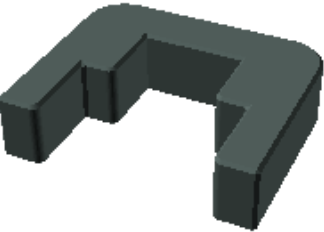
	Directory STLs/Z_Assembly **Filename** z_rear_extrusionbracket_right.stl **Manual name** Rear brace	53 Done? ☐ Yes	
	Directory STLs/Tools **Filename** MGN9_rail_guide_x2.stl **Manual name** Guide	58 Done? ☐ Yes	x2
	Directory STLs/Z_Assembly **Filename** z_carriage_rear_3hole.stl **Manual name** Generic Cable Chain	64 Done? ☐ Yes	Check directory for 2 hole version if required on cable chain
	Directory STLs/Z_Assembly **Filename** z_stepper_rear.stl **Manual name** none found	65 Done? ☐ Yes	

	Directory STLs/Z_Assembly **Filename** [a]_z_rail_stop_x3.stl **Manual name** none found	68 Done? ☐ Yes	x3
	Directory STLs/Z_Assembly **Filename** z_stepper_left.stl **Manual name** none found	69 Done? ☐ Yes	
	Directory STLs/Z_Assembly **Filename** z_stepper_right.stl **Manual name** none found	73 Done? ☐ Yes	
	Directory STLs/Z_Assembly **Filename** z_carriage_left.stl **Manual name** Left Z joint	77 Done? ☐ Yes	
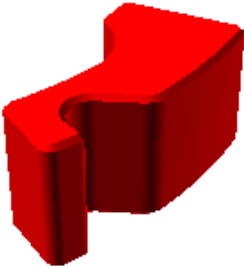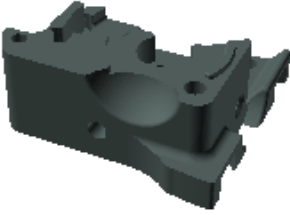
	Directory STLs/Z_Assembly **Filename** [a]_z_carriage_left.stl **Manual name** none found	77 Done? ☐ Yes	
	Directory STLs/Z_Assembly **Filename** [a]_z_carriage_right.stl **Manual name** none found	79 Done? ☐ Yes	
	Directory STLs/Z_Assembly **Filename** z_carriage_right.stl **Manual name** none found	79 Done? ☐ Yes	
	Directory STLs/Skirt **Filename** corner_a_x2.stl **Manual name** Feet	90 Done? ☐ Yes	x2
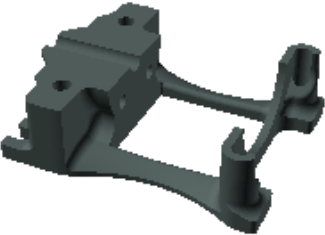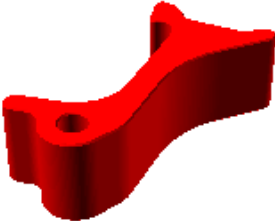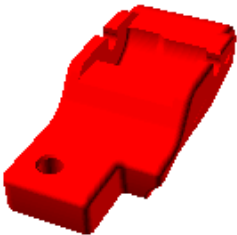
	Directory STLs/Skirt **Filename** corner_b_x2.stl **Manual name** Feet	90 Done? ☐ Yes	x2
	Directory STLs/Skirt **Filename** [a]_corner_baseplate_a_x2.stl **Manual name** none found	90 Done? ☐ Yes	x2
	Directory STLs/Skirt **Filename** [a]_corner_baseplate_b_x2.stl **Manual name** none found	90 Done? ☐ Yes	x2
	Directory STLs/Gantry/X_Axis/XY_Joints **Filename** xy_joint_left_lower_MGN12.stl **Manual name** Left XY Joint	99 Done? ☐ Yes	

	Directory STLs/Gantry/X_Axis/XY_Joints **Filename** xy_joint_left_upper_MGN12.stl **Manual name** none found	99 Done? ☐ Yes	
	Directory STLs/Gantry/X_Axis/XY_Joints **Filename** xy_joint_right_lower_MGN12.stl **Manual name** Right XY Joint	99 Done? ☐ Yes	
	Directory STLs/Gantry/X_Axis/XY_Joints **Filename** xy_joint_right_upper_MGN12.stl **Manual name** none found	99 Done? ☐ Yes	
	Directory STLs/Gantry/X_Axis/X_Carriage **Filename** x_carriage_frame_left.stl **Manual name** X Carriage	99 Done? ☐ Yes	

Image	Details	Done	Notes
	Directory STLs/Gantry/X_Axis/X_Carriage **Filename** x_carriage_frame_right.stl **Manual name** X Carriage	99 Done? ☐ Yes	
	Directory STLs/Gantry/X_Axis/X_Carriage **Filename** probe_retainer_bracket.stl **Manual name** none found	100 Done? ☐ Yes	Note: There are two similar shapes this one and the 9mm one probe_retainer_bracket_9mm.st
	Directory STLs/Gantry/X_Axis/XY_Joints **Filename** [a]_xy_joint_cable_bridge_3hole.stl **Manual name** none found	100 Done? ☐ Yes	Note: Check directory for 2 hole version if required for cable chain Mine's a 3 hole
	Directory STLs/Tools **Filename** MGN12_rail_guide_x2.stl **Manual name** none found	113 Done? ☐ Yes	x2
?		129 Done? ☐ Yes	I am guessing the blue part is a thermal fuse. Not an STL

	Directory STLs/Z_Assembly **Filename** nozzle_probe.stl **Manual name** none found	130 Done? ☐ Yes	
	Directory STLs/Z_Assembly **Filename** z_bed_left.stl **Manual name** none found	134 Done? ☐ Yes	
	Directory STLs/Z_Assembly **Filename** z_bed_rear.stl **Manual name** none found	136 Done? ☐ Yes	
	Directory STLs/Z_Assembly **Filename** z_bed_right.stl **Manual name**	138 Done? ☐ Yes	

	Directory STLs/Gantry/X_Axis/X_Carriage/ Direct Feed **Filename** extruder_motor_plate.stl **Manual name** none found	146 Done? ☐ Yes	
	Directory STLs/Gantry/X_Axis/X_Carriage/ Direct Feed **Filename** chain_anchor_3hole.stl **Manual name** none found	146 Done? ☐ Yes	Check directory for 2 hole version if required
	Directory STLs/Gantry/X_Axis/X_Carriage/ Direct Feed **Filename** [a]_latch_shuttle.stl **Manual name** none found	146 Done? ☐ Yes	
	Directory STLs/Gantry/X_Axis/X_Carriage/ Direct Feed **Filename** extruder_body.stl **Manual name** none found	147 Done? ☐ Yes	
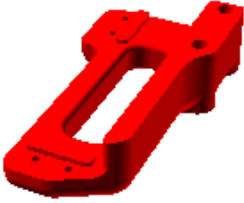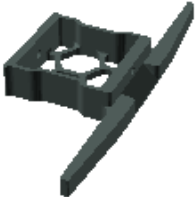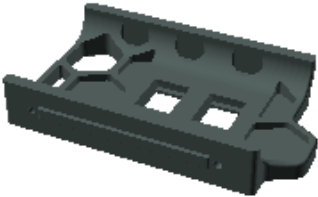
	Directory STLs/Gantry/X_Axis/X_Carriage/ Toolheads/Dragon **Filename** printhead_front_dragon.stl **Manual name** none found	148 Done? ☐ Yes	DRAGON mount DO YOU HAVE A DRAGON hot end?
	Directory STLs/Gantry/X_Axis/X_Carriage/T oolheads/Dragon **Filename** printhead_rear_dragon.stl **Manual name** none found	149 Done? ☐ Yes	DRAGON mount DO YOU HAVE A DRAGON hot end?
	Directory STLs/Gantry/X_Axis/X_Carriage/D irect Feed **Filename** [a]_latch.stl **Manual name** none found	161 Done? ☐ Yes	
	Directory STLs/Gantry/X_Axis/X_Carriage/D irect Feed **Filename** [a]_guidler.stl **Manual name** none found	161 Done? ☐ Yes	

	Directory STLs/Gantry/X_Axis/X_Carriage/ Direct Feed **Filename** [a]_connector_cover.stl **Manual name** none found	163 Done? ☐ Yes	
	Directory STLs/Gantry/X_Axis/X_Carriage **Filename** [a]_blower_housing_front.stl **Manual name** none found	167 Done? ☐ Yes	
	Directory STLs/Gantry/X_Axis/X_Carriage **Filename** blower_housing_rear.stl **Manual name** none found	167 Done? ☐ Yes	
	Directory STLs/Gantry/X_Axis/X_Carriage **Filename** hotend_fan_mount.stl **Manual name** none found	168 Done? ☐ Yes	
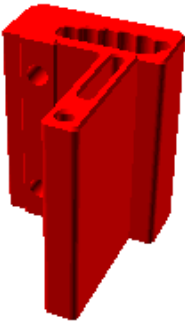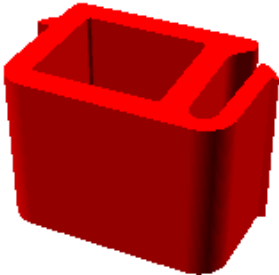
	Directory STLs/Z_Assembly **Filename** z_cable_chain_mount_3hole.stl **Manual name** Z chain Anchor	173 Done? ☐ Yes	Check directory for 2 hole version if required
	Directory STLs/Panels **Filename** wire_corner_left.stl **Manual name** cable cover	175 Done? ☐ Yes	
	Directory STLs/Panels **Filename** wire_corner_right.stl **Manual name** none found	176 Done? ☐ Yes	
	Directory STLs/ElectronicsBay **Filename** cable_frame_anchor_x6.stl **Manual name** none found	178 Done? ☐ Yes	x6

	Directory **STLs/ElectronicsBay** **Filename** DIN_center_support_x2.stl **Manual name** none found	181 Done? ☐ Yes	x2
	Directory **STLs/ElectronicsBay** **Filename** DIN_frame_mount_x4.stl **Manual name** none found	181 Done? ☐ Yes	x4
	Directory **STLs/ElectronicsBay** **Filename** pcb_din_clip_v2_x5.stl **Manual name** none found**y**	189 Done? ☐ Yes	x5
	Directory **STLs/ElectronicsBay** **Filename** raspberrypi_bracket.stl **Manual name** none found	198 Done? ☐ Yes	

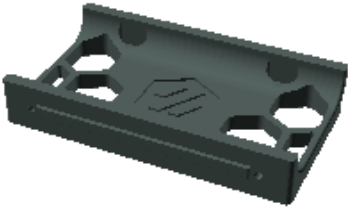|			
	Directory **STLs/ElectronicsBay** **Filename** lrs_psu_bracket_x2.stl **Manual name** none found	191 Done? ☐ Yes	x2
	Directory STLs/Skirt **Filename** power_inlet_filtered.stl **Manual name** none found	195 Done? ☐ Yes	
	Directory STLs/ElectronicsBay **Filename** PSU_stabilizer_50mm.stl **Manual name** none found	198 Done? ☐ Yes	
?	**Springloaded** **Can't find**	199 Done? ☐ Yes	Possibly not printed part
?	**Springloaded** **Can't find**	199 Done? ☐ Yes	Possibly not printed part
	Directory STLs/ElectronicsBay **Filename** raspberrypi_bracket.stl **Manual name** none found	201 Done? ☐ Yes	WARNING LOOKS NOTHING LIKE PICTURE IN MANUAL I HAVE DONE SOMETHING WRONG
?	**Can't find**	202 Done?	

		☐ Yes	
	Directory STLs/Gantry/X_Axis/XY_Joints **Filename** [a]_endstop_pod_microswitch.stl **Manual name** none found	203 Done? ☐ Yes	
	Directory STLs/Gantry/AB_Drive_Units **Filename** [a]_wire_cover.stl **Manual name** none found	225 Done? ☐ Yes	
	Directory STLs/Skirt **Filename** side_fan_support_x2.stl **Manual name** none found	233 Done? ☐ Yes	x2
	Directory STLs/Skirt **Filename** keystone_panel.stl **Manual name** none found	233 Done? ☐ Yes	

	Directory STLs/Skirt/250 **Filename** front_skirt_a_250.stl **Manual name** none found	233 Done? ☐ Yes	WARNING 250mm x 250mm do you have this bed size?
	Directory STLs/Skirt/250 **Filename** front_skirt_b_250.stl **Manual name** none found	233 Done? ☐ Yes	WARNING 250mm x 250mm do you have this bed size?
?	LED Screen Can't find	234 Done? ☐ Yes	
	Directory STLs/Skirt **Filename** mini12864_case_front.stl **Manual name** none found	234 Done? ☐ Yes	
	Directory STLs/Skirt **Filename** mini12864_case_rear.stl **Manual name** none found	235 Done? ☐ Yes	
	Can't find round thing **You make my heart sing,** **Wild thing.**	235 Done? ☐ Yes	

	Directory STLs/Skirt **Filename** [a]_mini12864_case_hinge.stl **Manual name** none found	236 Done? ☐ Yes	
	Directory STLs/Skirt **Filename** [a]_keystone_blank_insert_x2.stl **Manual name** none found	237 Done? ☐ Yes	x2
	Directory STLs/Skirt **Filename** [a]_skirt_logo_x2.stl **Manual name** none found	237 Done? ☐ Yes	X2
	Directory STLs/Skirt **Filename** rear_center_skirt_250.stl **Manual name** none found	241 Done? ☐ Yes	WARNING 250mm x 250mm do you have this bed size?

	Directory STLs/Skirt **Filename** side_skirt_a_250_x2.stl **Manual name** none found	242 Done? ☐ Yes	WARNING 250mm x 250mm do you have this bed size? x2
	Directory STLs/Skirt **Filename** [a]_60mm_fan_blank_insert_x2.stl **Manual name** none found	244 Done? ☐ Yes	x2
	Directory STLs/Panels **Filename** bottom_panel_hinge_x2.stl **Manual name** none found	250 Done? ☐ Yes	x2
	Directory STLs/Panels **Filename** corner_panel_clip_4mm_x8.stl **Manual name** none found	254 Done? ☐ Yes	Warning 4mm or 6mm part? x8

	Directory STLs/Panels **Filename** midspan_panel_clip_4mm_x7.stl **Manual name** none found	254 Done? ☐ Yes	Warning 4mm or 6mm part? x7
	Directory STLs/Panels/Front_Doors **Filename** latch_x2.stl **Manual name** none found	263 Done? ☐ Yes	x2
	Directory STLs/Panels/Front_Doors **Filename** handle_a_x2.stl **Manual name** none found	263 Done? ☐ Yes	x2
	Directory STLs/Panels/Front_Doors **Filename** handle_b_x2.stl **Manual name** none found	263 Done? ☐ Yes	x2

	Directory STLs/Panels/Front_Doors **Filename** latch_x2.stl **Manual name** none found	263 Done? ☐ Yes	x2
	Directory STLs/Panels/Front_Doors **Filename** door_hinge_x6.stl **Manual name** none found	265 Done? ☐ Yes	x6
	Directory STLs/Exhaust_Filter **Filename** exhaust_filter_housing.stl **Manual name** none found	268 Done? ☐ Yes	
	Directory STLs/Exhaust_Filter **Filename** [a]_filter_access_cover.stl **Manual name** none found	270 Done? ☐ Yes	

	Directory STLs/Exhaust_Filter **Filename** [a]_exhaust_filter_mount_x2.stl **Manual name** none found	272 Done? ☐ Yes	x2
	Directory STLs/Exhaust_Filter **Filename** exhaust_filter_grill.stl **Manual name** none found	272 Done? ☐ Yes	
	Directory STLs/Exhaust_Filter **Filename** bowen_retainer.stl **Manual name** none found	275 Done? ☐ Yes	
	Directory STLs/Exhaust_Filter **Filename** spool_holder.stl **Manual name** none found	276 Done? ☐ Yes	
	Steve (Team member and person who "drove the bus home on Trident project")	280 Done? ☐ Yes	Man in the red shirt. Well reddish. It's in that spectrum

	Eddie (Team member)	280 Done? ☐ Yes	This is not a red shirt.
	Dunar (Team member)	280 Done? ☐ Yes	Support structure may be required for the beard.
	[a]_Russiancatfood.stl **Manual name** Maks Zolin	280 Done? ☐ Yes	May require multiple materials Fearless leader

Done!

I have one question for you.

Did you print the tool on page 58 in the accent colour?

☐ Yes, because it's cool

☐ No, Mr George, Because I am on to you

Place ✓ above

Note: I spent far too much time on this doco. I can only imagine the hard work that the team has put in to actually make the Voron itself. So from a personal point of view I would like to say thanks to the official team here.