

Parts list Voron Trident 5-axis

Base

Aluminium Extrusion 2020	<i>Lenght 410mm</i>	2
Aluminium Extrusion 2020	<i>Lenght 180mm</i>	2
90 Degree corners	<i>For Aluminium profile 2020</i>	12
Screw	<i>M5 x 10mm</i>	24
Screw	<i>M5 x 20mm</i>	12
T nuts	<i>M5</i>	36
Heat insert	<i>M3 x 5mm</i>	2
Screw SHCS	<i>M3 x 8mm</i>	6
High precision Bearing	<i>608ZZ</i>	4
Spacer M8 x 1mm		2
Spacer M3 x 0.7 mm		4
Shaft 8mm Left	<i>lenght 57 mm</i>	1
Shaft 8mm Right	<i>lenght 79 mm</i>	1
Nema 17 stepper motor	<i>48mm 0.9deg, optimal 2.0Amp</i>	1
optical switch sensor for 3D printer		1
Closed loop GT2 belt 6mm	<i>lenght 302 or 303 mm</i>	1
Pulley GT2	<i>80 tooth 8mm bore</i>	1
Pulley GT2	<i>16 tooth 5mm bore</i>	1

https://www.amazon.com/MakerHawk-Optical-Endstop-Photoelectric-Control/dp/B07PMW2QMT/ref=sr_1_1?keywords=Optical+Endstop&qid=1700156544&sr=8-1

Table

Heat insert	<i>M3 x 5mm</i>	52
Screw SHCS	<i>M3 x 8mm</i>	52
Screw SHCS	<i>M3 x 10mm</i>	20
Screw SHCS	<i>M3 x 12mm</i>	1
Screw SHCS	<i>M3 x 20mm</i>	6
Screw FHCS	<i>M3 x 30mm</i>	6
Spacer M3 x 0.7 mm		7
NEMA_17_20mm 1.8deg		1
Pulley GT2	<i>20 tooth 5mm bore</i>	1
Slip Ring	<i>Dia 22mm 4CH 10A</i>	1
IGUS ring	<i>PRT_04_30 Diameter 90mm</i>	1
High precision Bearing	<i>608ZZ</i>	2
Closed loop GT2 belt 6mm	<i>length 330mm</i>	1
Pololu Hub 8mm	<i>The six M3 holes needs to be drilled with 3.2mm drill</i>	2
Round Heated bed round for kossel 220mm 24V		1
Round Magnetic sheet 220mm		1
Round PEI sheet 220mm	<i>for kossel</i>	1
Bed spring	<i>ID 3mm OD 6mm Length 15mm</i>	6

https://www.amazon.com/s?k=slip+ring+4+wire&crd=2COT7GQJ0ZH77&sprefix=sli+ring+4+wire%2Cap+s%2C217&ref=nb_sb_noss_1

https://www.igus.ch/product/iglidur_PRT_04?artnr=PRT-04-30

Z - axis Hotend with Extruder plus touch screen and blower fan

Heat insert	<i>M3 x 5mm</i>	27
Heat insert	<i>M2 x 4mm</i>	13
Screw SHCS	<i>M2 x 6mm</i>	17
Screw SHCS	<i>M3 x 8mm</i>	18
Screw SHCS	<i>M3 x 10mm</i>	6
Screw SHCS	<i>M3 x 12mm</i>	6
Screw SHCS	<i>M3 x 14mm</i>	8
Screw SHCS	<i>M3 x 16mm</i>	3
Screw FHCS stainless steel !!!	<i>M3 x 8mm</i>	4
Screw FHCS	<i>M3 x 22mm</i>	2
Screw FHCS	<i>M3 x 6mm</i>	6
Screw BHCS	<i>M5 x 10mm</i>	8
Screw BHCS	<i>M5 x 25mm</i>	5
T nuts	<i>M5</i>	5
Hex nut	<i>M3</i>	4
Spacer M5 x 1mm		1
Spacer M2 x 0.5 mm wide	<i>to fit the mouting hole</i>	4
neodymium magnets	<i>6 x 3 mm</i>	4
Self tapping Screw	<i>M2 size for micro switch</i>	2

MGN7 - H Linear Rail	<i>Lenght 200mm</i>	1
NEMA_17_20mm 1.8deg	<i>can be used from the voron kit</i>	1
Small Shaft 5mm	<i>Lenght 45mm</i>	1
Shaft Collar 5mm		1
High precision Bearing	625 ZZ	2
Pulley GT2	20 tooth 5mm bore	2
GT2 belt 6mm	<i>Lenght 500mm</i>	1
Micro switch for 3d printer		1
Nonplanar nozzle	0.4mm	1
24V Ceramic Heating Core	CHC	1
Heat Break For 1.75mm Filament M6	<i>for V6 Hotend</i>	1
Chain link 10x11	0.5m	1
PTFE Tube OD 4mm ID 2.5mm	<i>1.0 M then cut it tio required lenght</i>	1
PTFE Tube OD 4mm ID 2.0mm	<i>200mm then cut it tio required length in between hot end and extruder</i>	1
24V Blower Fan 120x120x32mm	<i>Printer will be installed with TWO Fans LEFT and RIGHT side</i>	2
24V Fan 30x30x10mm		1
Zip ties		100
Indicator Finger Clock for bed and axis calibration	0.01mm sensitivity	1

<https://www.nonplanar.xyz/nozzles>

<https://imprimante-3d-service.com/gb/553-trianglelab-chc-v6-24v-115w-ceramic-heater.html>

[https://en.wikipedia.org/wiki/Indicator_\(distance_amplifying_instrument\)](https://en.wikipedia.org/wiki/Indicator_(distance_amplifying_instrument)) <https://rdbarrett.co.uk/product/dial-test-indicator-horizontal-type-08mm-001mm-mitutoyo-finger-clock/>

***This parts
are only
for, if you
decide to
build
Direct
Drive
version***

DM1 OMG V2S Extruder kit with stepper motor and M6 to M10 adapter	<i>with M6 to M10 adapter and stepper motor</i>	1	https://www.omgextruder.com/product-page/omgextruder-omg-v2s-all-metal-direct-extruder-kit	https://store.dremc.com.au/products/omg-v2s-all-metal-direct-extruder-kit
V6 HeatSink Extruder Radiator 3D Printer	<i>bottom, top 1/8 or M10mm thread</i>	1		

***This parts
are only
for, if you
decide to
build
Bowden
Drive
version***

**Z - axis Hotend
with Extruder
plus touch
screen and
blower fan**

PTFE Tube OD 4mm ID 2.0mm	<i>1M then cut it to required length in between hot end and extruder</i>	1		
V6 pro adapter in between nozzle and heat element CHC	<i>M6 thread</i>	1	https://meltbro.de/v6-pro-adapter-ersetzt-volcano-hotend-fuer-v6-nozzle-duese-aus-vernickeltem-	https://3do.eu/spare-parts/672-v6-pro-adapter-to-increase-super-flow-of-v6-rapidohot-end.html
Phaetus x Voron Dragon Standard Flow or Highflow Hotend		1	https://www.3dmensions.de/phaetus-x-voron-dragon-hotend-st-2069#attr=9949,9951,22290	https://www.phaetus.com/products/phaetus-x-voron-hotend-st

Extruder for 1.75mm filament (for exmple BondTech) mounted at back of the frame of the printer	<i>BMG mounted with bracket on 2020 aluminium profile near to filament spool holder</i>	1	https://www.bondtech.se/product/bmg-extruder/
Pneumatic Coupler PC4-M10 With Collar	<i>PC4 - M10</i>	1	https://www.whambamsystems.com/products/metal-coupler-pc4-m10

Controls

Duet 6HC board		1	https://www.duet3d.com/duet3mainboard6hc
Power supply output 24V	<i>350W min.</i>	1	
Paneldue touch screen 5"		1	https://docs.duet3d.com/Duet3D_hardware/Accessories/PanelDue
Rj-45 cable, 0.5m	<i>male to female</i>	1	
Optional	<i>Raspberry Pi4</i>	1	