

## Parts list Voron Trident 5-axis

### Base

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

[https://www.amazon.com/MakerHawk-Optical-Endstop-Photoelectric-Control/dp/B07PMW2QMT/ref=sr\\_1\\_1?keywords=Optical+Endstop&qid=1700156544&sr=8-1](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>	<b>40</b>
Heat insert	<i>M3 x 7mm</i>	<b>6</b>

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

[https://www.amazon.com/s?k=slip+ring+4+wire&crid=2COT7GQJ0ZH7&srefix=slip+ring+4+wire%2Caps%2C217&ref=nb\\_sb\\_noss\\_1](https://www.amazon.com/s?k=slip+ring+4+wire&crid=2COT7GQJ0ZH7&srefix=slip+ring+4+wire%2Caps%2C217&ref=nb_sb_noss_1)

[https://www.igus.ch/product/iglidur\\_PRT\\_04?artnr=PRT-04-30](https://www.igus.ch/product/iglidur_PRT_04?artnr=PRT-04-30)

## Z - axis Hotend with Extruder

Heat insert	<i>M3 x 5mm</i>	<b>20</b>
Heat insert	<i>M2 x 4mm</i>	<b>13</b>
Screw SHCS	<i>M2 x 6mm</i>	<b>17</b>

Screw SHCS	<i>M3 x 8mm</i>	<b>12</b>
Screw SHCS	<i>M3 x 10mm</i>	<b>4</b>
Screw SHCS	<i>M3 x 14mm</i>	<b>8</b>
Screw SHCS	<i>M3 x 16mm</i>	<b>3</b>
Screw FHCS	<i>M3 x 22mm</i>	<b>2</b>
Screw FHCS stainless steel !!!	<i>M3 x 6mm</i>	<b>10</b>
Spacer M5 x 1mm		<b>1</b>
Spacer M2 x 0.5 mm wide		<b>4</b>
neodymium magnets	<i>6 x 3 mm</i>	<b>4</b>
Self tapping Screw	<i>M2 size for micro switch</i>	<b>2</b>
MGN7 - H Linear Rail	<i>Lenght 200mm</i>	<b>1</b>
NEMA_17_20mm 1.8deg		<b>1</b>
Small Shaft 5mm	<i>Lenght 44mm</i>	<b>1</b>
Shaft Collar 5mm		<b>1</b>
High precision Bearing	<i>625 ZZ</i>	<b>2</b>
Pulley GT2	<i>20 tooth 5mm bore</i>	<b>2</b>
GT2 belt 6mm	<i>Lenght 500mm</i>	<b>1</b>
Micro switch for 3d printer		<b>1</b>
Nonplanar nozzle	<i>0.4mm</i>	<b>1</b>
24V Ceramic Heating Core	<i>CHC</i>	<b>1</b>
Heat Break For 1.75mm Filament M6	<i>for V6 Hotend</i>	<b>1</b>
HeatSink Extruder Radiator 3D Printer	<i>for V6 Hotend M6 bottom, top 1/8 or M10mm thread</i>	<b>1</b>
OMG V2S Extruder	<i>with M6 to M10 adapter and stepper motor</i>	<b>1</b>
PTFE Tube OD 4mm ID 2.5mm	<i>1.0 M then cut it tio required lenght</i>	<b>1</b>

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

<https://www.omgextrd.com/product-page/omgextrd-omg-s/omg-v2s-all-metal-direct-extruder-dm1-extruder-upgrade> <https://store.dremc.com.au/product-s/omg-v2s-all-metal-direct-extruder-dual-drive-dm1-a-dm1-b>

24V Fan 30x30x10mm		1
Zip ties		100

## Controls

Duet 6HC board		1
Power supply output 24V	<i>350W min.</i>	1
Rj-45 cable, 0.5m	<i>male to female</i>	1
Optional	<i>Raspberry Pi4</i>	1