### **Parts list Voron Trident 5-axis**

#### **Base**

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

https://www.amazon.com/M akerHawk-Optical-Endstop-Photoelectric-Control/dp/B07PMW2QMT/r ef=sr\_1\_1?keywords=Optical +Endstop&qid=1700156544& sr=8-1

### **Table**

| Heat insert | M3 x 5mm | 40 |
|-------------|----------|----|
| Heat insert | M3 x 7mm | 6  |

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

https://www.amazon.com/s? k=slip+ring+4+wire&crid=2CO T7GQJ0ZHZ7&sprefix=slip+rin g+4+wire%2Caps%2C217&ref =nb\_sb\_noss\_1

https://www.igus.ch/product /iglidur\_PRT\_04?artnr=PRT-04-30

# **Z** - axis Hotend with Extruder

| Heat insert | M3 x 5mm | 20 |
|-------------|----------|----|
| Heat insert | M2 x 4mm | 13 |
| Screw SHCS  | M2 x 6mm | 17 |

| Screw SHCS                               | M3 x 8mm                                                  | 12 |
|------------------------------------------|-----------------------------------------------------------|----|
| Screw SHCS                               | M3 x 10mm                                                 | 4  |
| Screw SHCS                               | M3 x 14mm                                                 | 8  |
| Screw SHCS                               | M3 x 16mm                                                 | 3  |
| Screw FHCS                               | M3 x 22mm                                                 | 2  |
| Screw FHCS stainless steel !!!           | M3 x 6mm                                                  | 10 |
| Spacer M5 x 1mm                          |                                                           | 1  |
| Spacer M2 x 0.5 mm wide                  |                                                           | 4  |
| neodymium magnets                        | 6 x 3 mm                                                  | 4  |
| Self taping Screw                        | M2 size for micro<br>switch                               | 2  |
| MGN7 - H Linear Rail                     | Lenght 200mm                                              | 1  |
| NEMA_17_20mm 1.8deg                      |                                                           | 1  |
| Small Shaft 5mm                          | Lenght 44mm                                               | 1  |
| Shaft Collar 5mm                         |                                                           | 1  |
| High precision Bearing                   | 625 ZZ                                                    | 2  |
| Pulley GT2                               | 20 tooth 5mm bore                                         | 2  |
| GT2 belt 6mm                             | Lenght 500mm                                              | 1  |
| Micro switch for 3d printer              |                                                           | 1  |
| Nonplanar nozzle                         | 0.4mm                                                     | 1  |
| 24V Ceramic Heating Core                 | СНС                                                       | 1  |
| Heat Break For 1.75mm<br>Filament M6     | for V6 Hotend                                             | 1  |
| HeatSink Extruder Radiator 3D<br>Printer | for V6 Hotend M6<br>bottom,<br>top 1/8 or M10mm<br>thread | 1  |
| DM1 OMG V2S Extruder                     | with M6 to M10<br>adapter and stepper<br>motor            | 1  |
| PTFE Tube OD 4mm ID 2.5mm                | 1.0 M then cut it tio required lenght                     | 1  |
|                                          |                                                           |    |

https://imprimante-3dservice.com/gb/553trianglelab-chc-v6-24v-115wceramic-heater.html

https://www.omgextrd.com/ https://store.dremc.com.au/product product-page/omgextrd-omg- s/omg-v2s-all-metal-direct-extruderdm1-extruder-upgrade dual-drive-dm1-a-dm1-b

| 24V Fan 30x30x10mm | 1   |
|--------------------|-----|
| Zip ties           | 100 |

## **Controls**

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