

### Bill of materials and other informations

**Note.** This document deals with what is necessary to carry out the project as originally conceived with the standard BLV frame 310x310x365 and 2 guides for Z axis

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## Bill of materials

#### Components

| Quantity | Product name                                  | Type / Aliexpress choice     | Link 1      | Link 2      |
|----------|-----------------------------------------------|------------------------------|-------------|-------------|
| 1        | BLV MGN Cube blind joint frame kit            | 365 Dual Z axis              | Link        |             |
| 2        | T8 Leadscrews                                 | 400mm - 8mm lead             | Link        |             |
| 5        | Linear rails MGN12                            | 400mm - MGN12H(black)        | Link        |             |
| 1        | Additional rail block (U Axis)                | H Block Only - MGN12H(black) | Link        |             |
| 1        | MeanWell LRS-350-24 PSÚ PSU 24V 350w          |                              | Link        |             |
| 1        | SSR-25DA                                      |                              | Link        |             |
| 1        | SSR-40DA                                      |                              | Link        |             |
| 1        | D20 L25 Couplers 5x8x25mm                     | 2pcs                         | Link        |             |
| 1        | Heated silicon bed 310x310                    | 220v 750watt                 | Link        | <u>Link</u> |
| 1        | Fusibili termici 10A 250V - 172 gradi         | 5 Pieces – 15A – 165C        | Link        | <u>Link</u> |
|          | -                                             |                              |             | <u>Link</u> |
| 1        | Build Plate                                   | 300x300 - 310x310            | <u>Link</u> | <u>Link</u> |
| 1        | Magnetic bed                                  | 310x310                      | <u>Link</u> | <u>Link</u> |
| 1        | 2PCS Blower Gdstime 5015 50mm DC 24V          | 24V Ball 5000RPM             | <u>Link</u> |             |
| 1        | 5PCS Fan Gdstime DC 24V 3cm 30x30x10mm        | 0.06A3010B24V2P2.54          | <u>Link</u> |             |
| 1        | Duet2 Wifi V1.04 32bit                        |                              | <u>Link</u> |             |
| 1        | Duex5 DueX expansion board with TMC2660       |                              | <u>Link</u> |             |
| 1        | Display PanelDue 5i / 7i                      |                              | <u>Link</u> |             |
| 1        | Wantai 3 PCS Stepper Nema17 42BYGHM810 0.9°   | 3PCS-42BYGHM810              | <u>Link</u> |             |
| 1        | Wantai 5 PCS Stepper Nema17 42BYGHW811 1.8°   |                              | <u>Link</u> |             |
| 4        | LDO Stepper Nema17 0.9 LDO-42STH25-1404MAC    |                              | <u>Link</u> |             |
| 2        | GT2 20T Pulley Bore 5mm                       | For 10mm                     | <u>Link</u> |             |
| 2        | GT2 20T Idler Bore 5mm toohless               | W 11mm without teeth         | <u>Link</u> |             |
| 4        | GT2 20T Idler Bore 5mm with teeth             | W 11mm with teeth            | <u>Link</u> |             |
| 1        | 2PCS GT2 Pulley 16T Bore 5mm with teeth       | 16 teeth                     | <u>Link</u> |             |
| 2        | GT2 20T Idler Bore 3mm with teeth             | 20T With teeth               | <u>Link</u> |             |
| 1        | Gates GT2 timing belt 9mm                     | 4M-9MM-2GT                   | <u>Link</u> |             |
| 1        | Gates GT2 timing belt 6mm                     | 4M-6MM-2GT                   | <u>Link</u> |             |
| 2        | BMG Direct Drive base kit                     | Diy Basic Kit                | <u>Link</u> |             |
| 2        | Hotend MASP MK8-R                             |                              | <u>Link</u> |             |
| 1        | Power button 16mm                             | 220V Self-reset Momentary    | <u>Link</u> |             |
| 1        | Antclabs BLTouch Probe                        |                              | <u>Link</u> |             |
| 1        | BLTouch SM-DU extension cable                 | 1.5mt                        | <u>Link</u> |             |
| 1        | Silicon 500°C resistant (nozzle purge system) | 150x150x3mm                  | <u>Link</u> | <u>Link</u> |
| 2        | Ceramic Cartridge Heater                      | 24V 50W 2M                   | <u>Link</u> |             |
| 2        | Termistore E3D-E-SEMITEC-50-MOLEX-INC-CABLE   |                              | <u>Link</u> | <u>Link</u> |
| 1        | Build plate silicon spacers                   | 4pcs 16ymm – color black     | <u>Link</u> | <u>Link</u> |
| 1        | Tappetino isolamento termico Heatbed          | 300x300x10MM                 | <u>Link</u> | <u>Link</u> |
| 1        | MicroSD Memory (for the board)                | 1gb min.                     | <u>Link</u> | <u>Link</u> |
| 1        | AC Power switch with fuse                     | 1PC witch cable              | <u>Link</u> | <u>Link</u> |
| 2        | High quality nozzle 0.4mm E3D V6              | 0.4                          | <u>Link</u> |             |
| 1        | Limit Switch Roller                           |                              | <u>Link</u> |             |
| 1        | Ball bearings                                 | 635ZZ                        | <u>Link</u> |             |

#### Hardware

| Quantità | Nome articolo       | Tipologia / Opzione Aliexpress | Link 1 | Link 2 |
|----------|---------------------|--------------------------------|--------|--------|
| 100      | M3x8                | Screw                          |        |        |
| 20       | M3x10               | Screw                          |        |        |
| 20       | M3x12               | Screw                          |        |        |
| 20       | M3x16               | Screw                          |        |        |
| 20       | M3x20               | Screw                          |        |        |
| 20       | M3x25               | Screw                          |        |        |
| 20       | M3x30               | Screw                          |        |        |
| 10       | M3x35               | Screw                          |        |        |
| 12       | M3x40               | Screw                          |        |        |
| 12       | M4x10               | Screw                          |        |        |
| 6        | M4x25               | Screw                          |        |        |
| 50       | M5x8                | Screw                          |        |        |
| 4        | M5x20               | Screw                          |        |        |
| 6        | M5x30               | Screw                          |        |        |
| 6        | M5x35               | Screw                          |        |        |
| 100      | Tnut M3             | T-Nut                          |        |        |
| 50       | Tnut M5             | T-Nut                          |        |        |
| 30       | Dadi M3 (nut)       | Nut                            |        |        |
| 30       | Dadi M4             | Nut                            |        |        |
| 20       | Dadi M5             | Nut                            |        |        |
| 4        | M3x35 testa svasata | Screw flat head                |        |        |
| 50       | M3 rondelle         | Washers                        |        |        |
| 50       | M4 rondelle         | Washers                        |        |        |
| 50       | M5 rondelle         | Washers                        |        |        |

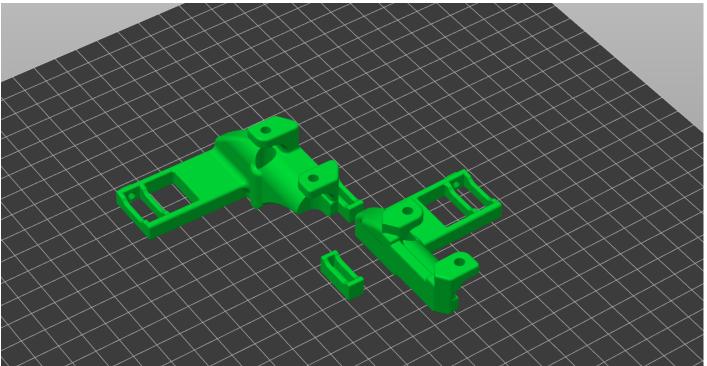
### 3D project realtime view

In order to see every single detail about this project, click here: <a href="https://a360.co/38jP7D8">https://a360.co/38jP7D8</a>

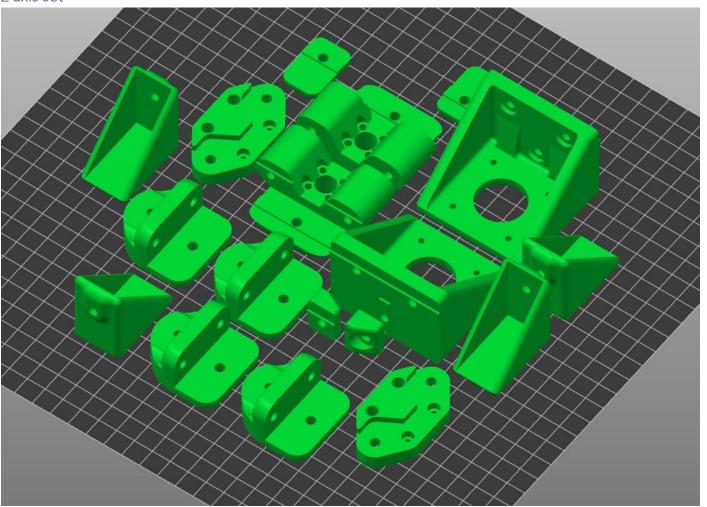


## Printed parts placement

Nozzle purge system (left & right)

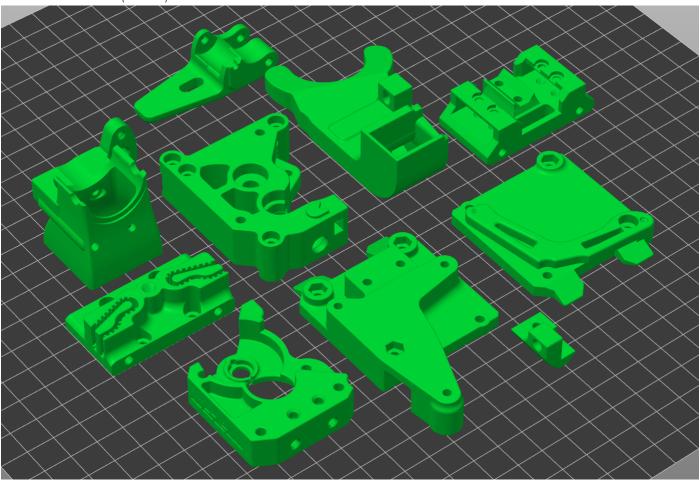


Z axis set

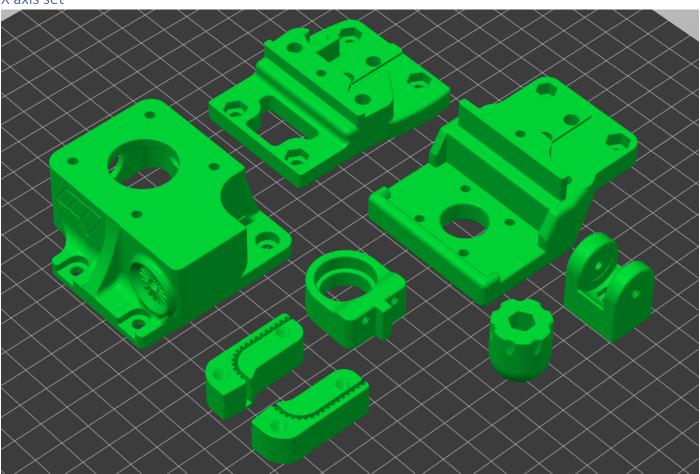


Right extruder set (U axis)

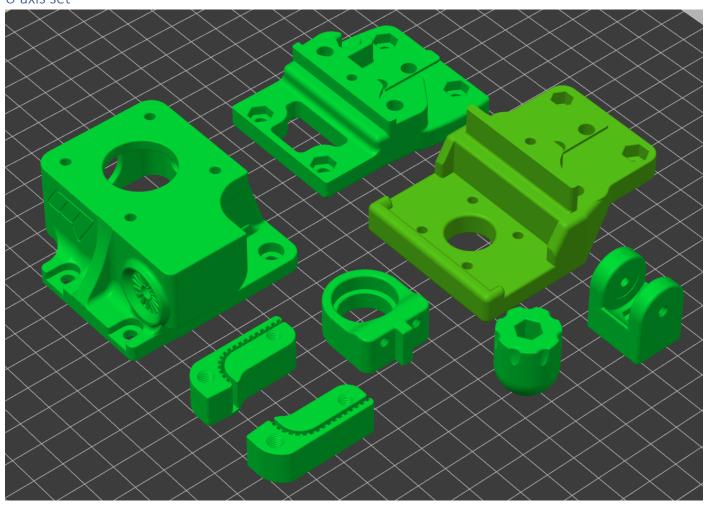
Left extruder set (X axis)



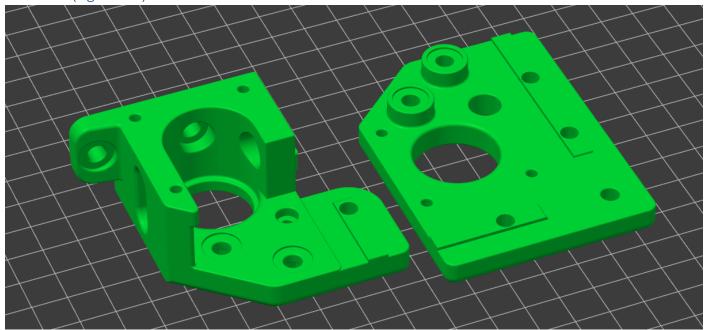
X axis set



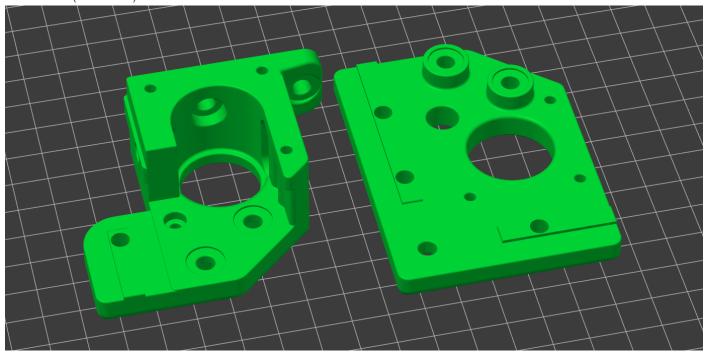
#### U axis set



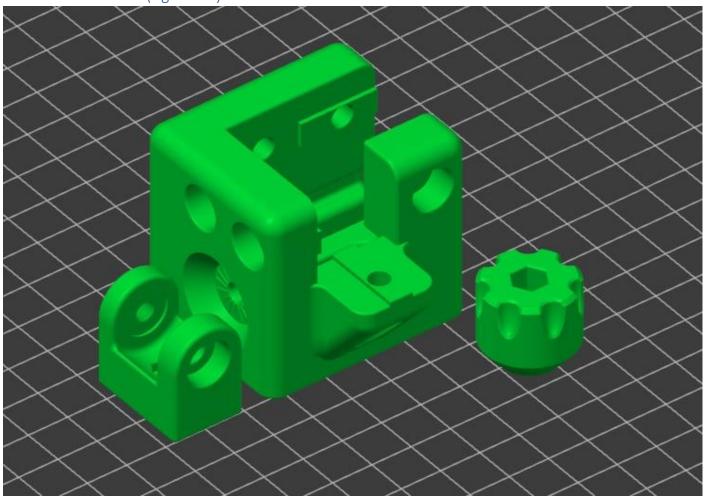
#### Y axis set (right side)



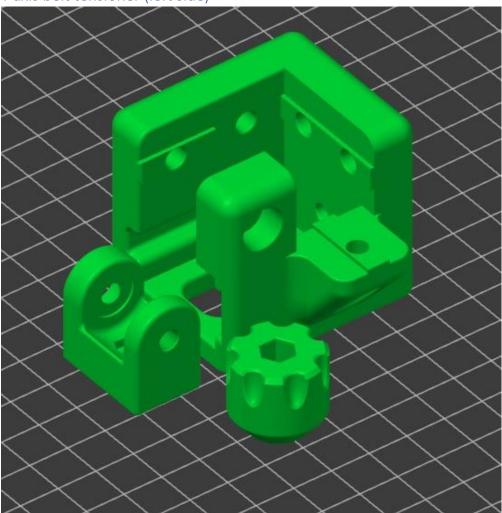
Y axis set (left side)



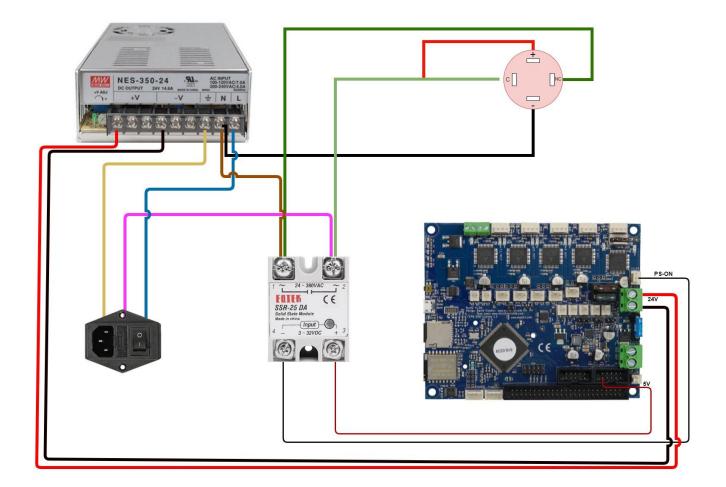
Y axis belt tensioner (right side)







## Power wiring diagram



# Heated bed wiring diagram

