| Category      | Component                             | Standard            | QTY | Note  |
|---------------|---------------------------------------|---------------------|-----|---|
| Filament      | Primary Color ABS/ASA                 |                     | 2   |   |
| Filament      | Accent Color ABS/ASA                  |                     | 1   |   |
| Filament      | Primary color TPU                     |                     | 1   | For TPU feet<br>(optional)  |
| Printed parts | Printed parts                         |                     | 1   |   |
| Fasteners     | M5x30 BHCS                            | ISO 7380-0          | 4   | For TPU feet<br>(optional)  |
| Fasteners     | M5x16 BHCS                            | ISO 7380-1          | 6   |   |
| Fasteners     | M5x12 BHCS                            | ISO 7380-1          | 131 |   |
| Fasteners     | M5x10 BHCS                            | ISO 7380-1          | 6   |   |
| Fasteners     | M5x8 BHCS                             | ISO 7380-1          | 45  |   |
| Fasteners     | M4x10 BHCS                            | ISO 7380-1          | 4   |   |
| Fasteners     | M5x100 SHCS                           | ISO 4762 / DIN 912  | 4   |   |
| Fasteners     | M5x30 SHCS                            | ISO 4762 / DIN 912  | 4   |   |
| Fasteners     | M5x25 SHCS                            | ISO 4762 / DIN 912  | 2   |   |
| Fasteners     | M5x20 SHCS                            | ISO 4762 / DIN 913  | 8   |   |
| Fasteners     | M3x20 SHCS                            | ISO 4762 / DIN 911  | 4   |   |
| Fasteners     | M3x10 SHCS                            | ISO 4762 / DIN 912  | 46  |   |
| Fasteners     | M3x8 SHCS                             | ISO 4762 / DIN 912  | 12  |   |
| Fasteners     | M3x5 SHCS                             | ISO 4762 / DIN 912  | 28  |   |
| Fasteners     | M2.5x8 SHCS                           | ISO 4762 / DIN 912  | 6   |   |
| Fasteners     | M3x6 FHCS                             | ISO 10642           | 17  |   |
| Fasteners     | M3 Washer                             | ISO 7089 / DIN 125  | 4   |   |
| Fasteners     | M5 Washer                             | ISO 7089 / DIN 125  | 12  |   |
| Fasteners     | M5 Heated insert                      |                     | 27  |   |
| Fasteners     | M3 Heated insert                      |                     | 33  |   |
| Fasteners     | M2.5 Heated insert                    |                     | 6   |   |
| Fasteners     | M5 Nyloc Hexnut                       | ISO 10511 / DIN 985 | 8   |   |
| Fasteners     | M2x10 self tapping screw for plastics |                     | 8   | (if using SKR mini E3 form factor<br>boards you only require 12 with<br>a pi and 5 without) |
| Fasteners     | M3x10 Grub Screw                      | ISO 4026 / DIN 913  | 4   |   |

| Fasteners                       | M5 Spring T-Nut  |                             | 90 |   |
|---------------------------------|--|-----------------------------|----|---|
| Fasteners                       | M3 Spring T-Nut  |                             | 36 |   |
| Fasteners                       | Fan screws   | Mechatronics fan group CS-1 | 8  |   |
| Frame (main)                    | Openbuilds 4080x470mm C-Beam profile extrusion                                   |                             | 1  |   |
| Frame (main)                    | Openbuilds 4080x260mm C-Beam profile extrusion                                   |                             | 2  |   |
| Frame (main)                    | Openbuilds 4080x120mm C-Beam profile extrusion                                   |                             | 1  |   |
| Frame (main)                    | Openbuilds 4080x250mm C-Beam profile extrusion                                   |                             | 1  |   |
| Frame (main)                    | Openbuilds 4080x500mm C-Beam profile extrusion                                   |                             | 1  |   |
| Frame (main)                    | Openbuilds 2040x500mm C-Beam profile extrusion                                   |                             | 2  |   |
| Frame (main)                    | Aluminium XY mounting plate  |                             | 1  | (optional can be printed)   |
| Frame (main)                    | Aluminium Z mounting plate   |                             | 1  | (optional can be printed)   |
| Frame (electronics table)       | Openbuilds 2080x550mm extrusion  |                             | 3  |   |
| Frame (electronics table)       | Openbuilds 2040x580mm extrusion  |                             | 2  |   |
| Frame (electronics table)       | Openbuilds 2020x200mm extrusion  |                             | 1  |   |
| Frame (electronics table)       | Angled corner connector 2020   |                             | 12 |   |
| Electronics (main)              | Nema 23 motor 23HP22-2804S / 2303HS200AW / LDO-57STH56-2804AC                    |                             | 3  |   |
| Electronics (main)              | Omron SS-5GL micro switch  |                             | 3  |   |
| Electronics (electronics table) | Mean Well LRS-250-24 PSU   |                             | 1  |   |
| Electronics (electronics table) | IEC320 C14 Inlet - Push-fit - w/ Rocker Switch & Fuse                            |                             | 1  |   |
| Electronics (electronics table) | 40x40 24V axial fan  |                             | 2  |   |
| Electronics (electronics table) | Micro SD card  |                             | 1  |   |
| Electronics (electronics table) | Mellow fly e3 / mellow fly CDY V3.0  |                             | 1  |   |
| Electronics (electronics table) | 22mm E-stop switch actuator  |                             | 1  |   |
| Electronics (electronics table) | TMC 2209 (2A RMS)<br>TMC 5160 (3A RMS)<br>TMC 2660 (2.4A RMS)<br>DRV 8825 (2.5A) |                             | 3  | (use drivers that are suitable<br>for your motors needs<br>i.e match your motor's phase<br>current to your driver's max RMS<br>current) |
| Motion (main)                   | XY gantry plate  |                             | 1  |   |
| Motion (main)                   | Z gantry plate   |                             | 1  |   |
| Motion (main)                   | 200mm GT2 closed loop belt   |                             | 1  |   |

| Motion (main)             | MGN15 rail 350mm                                  |           | 2   |   |
|---------------------------|---|-----------|-----|---|
| Motion (main)             | MGN15 rail 250mm                                  |           | 2   |   |
| Motion (main)             | MGN15 rail 500mm                                  |           | 2   |   |
| Motion (main)             | MGN15C rail carriage                              |           | 12  |   |
| Motion (main)             | TR8x8 4 start leadscrew 550mm (min)               |           | 1   |   |
| Motion (main)             | TR8x8 4 start leadscrew 550mm (min)               |           | 1   |   |
| Motion (main)             | TR8x8 4 start leadscrew 300mm (min)               |           | 1   |   |
| Motion (main)             | TR8x8 4 start brass leadscrew nut                 |           | 6   |   |
| Motion (main)             | GT2 20T (6mm wide) Pulley (6.35mm(1/4 inch) bore) |           | 1   |   |
| Motion (main)             | GT2 40T (6mm wide) Pulley (8mm bore)              |           | 1   |   |
| Motion (main)             | 608 2Z shielded deep groove ball bearing          |           | 8   |   |
| Motion (main)             | F608 2Z shielded deep groove ball bearing         |           | 4   |   |
| Motion (main)             | Spider or rigid coupler 8mm to 6.35mm (1/4 inch)  |           | 2   |   |
| Motion (main)             | 8mm Bore locking colar                            |           | 6   |   |
| Panel (electronics Table) | Acrylic Eclosure bottom panel                     |           | 1   |   |
| Cables (main)             | 10x11 Cable Chain - Openable (1m)                 |           | 3   |   |
| Cables (main)             | Nylon Cable Ties (less than 5mm wide)             |           | 100 |   |
| Cables (main)             | 18AWG* (min) Mains wiring (neutral, line, ground) |           | 1   | (*consult your local guidelines for regulation wiring size) |
| Cables (main)             | 20AWG Silicone or PTFE Cable (25ft total)         |           | 1   |   |
| Cables (main)             | 24AWG PTFE Cable (50ft total)                     |           | 1   |   |
| Cables (main)             | Fork Spade Terminal                               | JST-FVDDF | 15  |   |
| Cables (main)             | Insulated Crimp Receptical                        | JST-FVDDF | 10  |   |
| Cables (main)             | Ferrule CableTerminations                         |           | N/A | (size and use where appropriate)                            |
| Cables (main)             | JST Connector 2 Position                          | JST-XH    | 3   |   |
| Cables (main)             | JST Connector 4 Position                          | JST-XH    | 3   |   |
| Misc                      | Epoxy Resin 1L                                    |           | 1   | (optional)  |
| Misc                      | Granite Sand                                      |           | 1   | (optional)  |