Category	Component	Standard QTY	Y Note	Recommended A	Iternative 1	Alternative 2	e 2 Alternative 3
Filament	Primary Color ABS/ASA		2	Esun ABS+			
Filament	Accent Color ABS/ASA		1				
Filament	Primary color TPU		1 For TPU feet	Eryone TPU			
Printed parts	Printed parts		1				
Fasteners	M5x30 BHCS	ISO 7380-1	4 For TPU feet (optional)	ACCU			
Fasteners	M5x16 BHCS		6 (optorial)	ACCU			
Fasteners	M5x12 BHCS	ISO 7380-1 13	1	ACCU			
Fasteners	M5x10 BHCS	ISO 7380-1	6	ACCU ACCU			
Fasteners	M5x8 BHCS	ISO 7380-1 4	5	ACCU			
Fasteners	M4x10 BHCS	ISO 7380-1	4	ACCU ACCU			
Fasteners	M5x100 SHCS	ISO 4762 / DIN 912	4	ACCU			
Fasteners	M5x30 SHCS	ISO 4762 / DIN 912	4	ACCU			
Fasteners	M5x25 SHCS	ISO 4762 / DIN 912	2	ACCU			
Fasteners	M5x20 SHCS	ISO 4762 / DIN 912	8	ACCU ACCU ACCU			
Fasteners	M3x20 SHCS M3x10 SHCS	ISO 4762 / DIN 912	4	ACCU			
Fasteners	M3x8 SHCS	ISO 4762 / DIN 912 4		ACCU			
Fasteners Fasteners	M3x5 SHCS	ISO 4762 / DIN 912 1		ACCU			
Fasteners	M2.5x12 SHCS	ISO 4762 / DIN 912		ACCU			
Fasteners	M3x6 FHCS	ISO 10642 1		ACCU ACCU ACCU			
Fasteners	M3 Washer	ISO 7089 / DIN 125	4	ACCU			
Fasteners	M5 Washer	ISO 7089 / DIN 125 1:	2	ACCU ACCU			
Fasteners	M5 Heated insert	2		CNC Kitchen	Mouser		
Fasteners	M3 Heated insert	3		CNC Kitchen	Mouser		
Fasteners	M2.5 Heated insert		6	CNC Kitchen			
Fasteners	M5 Nyloc Hexnut	ISO 10511 / DIN 985	8	ACCU			
Fasteners	M3x6 self tapping screw for plastics	100 1000 15	8	ACCU			
Fasteners	M3x10 Grub Sorew	ISO 4026 / DIN 913	4	ACCU			
Fasteners	M5 Spring T-Nut	9	U C	CNC Kitchen ACCU ACCU ACCU ACCU Amazon Amazon			
Fasteners Fasteners	M3 Spring T-Nut Fan screws	Mochatronica 3	0	Amazon	ACCU		
		Mechatronics fan group CS-1	•	Amazon	- Augu		
Frame (main)	Openbuilds 4080x470mm C-Beam profile extrusion		1	Ooznest			
Frame (main)	Openbuilds 4080x260mm C-Beam profile extrusion		2	<u>Ooznest</u>			
Frame (main)	Openbuilds 4080x120mm C-Beam profile extrusion		1	Ooznest			
Frame (main)	Openbuilds 4080x250mm C-Beam profile extrusion		1	<u>Ooznest</u>			
Frame (main)	Openbuilds 4080x500mm C-Beam profile extrusion		1	Ooznest			
Frame (main)	Openbuilds 2040x500mm extrusion Openbuilds 2080x550mm extrusion		2	Ooznest			
Frame (electronics table) Frame (electronics table)	Openbuilds 2080x550mm extrusion Openbuilds 2040x580mm extrusion		3	Ooznest Ooznest			
Frame (electronics table)	Openbuilds 2020x200mm extrusion		1	Ooznest			
Frame (electronics table)	Angled corner connector 2020		8	Aliexpress			
Electronics (main)	Nema 23 motor 23HP22-2804S / 2303HS200AW /		3	Ooznest	DEH		
	LDO-57STH56-2804AC						
Electronics (main)	Omron SS-5GL micro switch Mean Well LRS-350-24 PSU		3	Digikey			
) IEC320 C14 Inlet - Push-fit - w/ Rocker Switch & Fuse		1	Digikey Digikey	Amazon	Allexpress	
Electronics (electronics table)			1	Amazon Amazon			
Electronics (electronics table)			1	Amazon			
	Mellow fly e3 / mellow fly CDY V3.0 / BTT E3 RRF		1	Fly CDY	Fly E3	BTT E3 RRF	RE
	22mm E-stop switch actuator		1	Amazon			
Electronics (electronics table)) TMC 2209 (2A RMS) TMC 5160 (3A RMS) TMC 2660 (2.4A RMS) DRV 8825 (2.5A)		3 (use drivers that are suitable for your motors needs is match your motor's phase current to your driver's max RMS current)	TMC 2209	TMC 5160	TMC2660	0 DRV8825
Motion (main)	XY gantry plate		1 (Can be printed)	Fabreeko			
Motion (main)	Z gantry plate		-				
Motion (main)	200mm GT2 closed loop belt		1 (Can be printed)	<u>Fabreeko</u>			
Motion (main)			1 (Can be printed)	Fabreeko Aliexpress			
	MGN15 rail 350mm		1 (Can be printed) 1 2	Fabreeko Aliexpress CNA			
Motion (main)	MGN15 rail 250mm		1 (Can be printed) 1 2 2	Aliexpress CNA (Don't			
Motion (main) Motion (main)		1	1 (Can be printed) 1 2 2 2 2 2	Aliexpress CNA (Don't			
Motion (main)	MGN15 rail 250mm MGN15 rail 500mm MGN15C rail carriage	1	1 2 2 2 2 2	Allexpress CNA (Don't mix/match suppliers)			
	MGN15 rail 250mm MGN15 rail 500mm	1.	1 2 2 2 2 2	Allexpress CNA (Don't mix/match suppliers) Allexpress			
Motion (main) Motion (main) Motion (main) Motion (main)	MGN15 rail 250mm MGN15 rail 50mm MGN15 rail corinage TR8x8 4 start leadscrew \$50mm (min) TR8x8 4 start leadscrew \$50mm (min) TR8x8 4 start leadscrew 300mm (min)	1.	1 2 2 2 2 2	Fabreeko Aliexpress CNA (Don't mix/match suppliers) Aliexpress Aliexpress Aliexpress Aliexpress			
Motion (main) Motion (main) Motion (main) Motion (main) Motion (main) Motion (main)	MON15 rail 250mm MON15 rail 500mm MON15 rail 500mm MON15C rail carriage TR&64 4 start leadscrew 550mm (min) TR&64 4 start leadscrew 550mm (min) TR&64 4 start leadscrew 300mm (min) TR&64 4 start leadscrew 900mm (min) TR&64 4 start leadscrew wort	1.	1 2 2 2 2 2	Fabreeko Aliexpress CNA (Don't mix/match suppliers) Aliexpress Aliexpress Aliexpress Amazon			
Motion (main) Motion (main) Motion (main) Motion (main) Motion (main) Motion (main)	MGN15 rail 500mm MGN15 rail 500mm MGN15 rail 600mm MGN16 rail carriage TRak8 4 start leadscrew 550mm (min) TRak8 4 start leadscrew 550mm (min) TRak8 4 start leadscrew 300mm (min) TRak8 4 start brass leadscrew int G12 20T (6mm wide) Pulley (6.3 55mm(1/4 inch) bore)	1.	1 2 2 2 2 2	Fabreeko Aliexpress CNA (Don't mix/match suppliers) Aliexpress Aliexpress Aliexpress Aliexpress Aliexpress Occupant			
Motion (main)	MON15 rail 250mm MON15 rail 250mm MON15 rail 250mm MON15 rail carriage TR8x8 4 start leadscrew 550mm (min) TR8x8 4 start leadscrew 550mm (min) TR8x8 4 start leadscrew 500mm (min) TR8x8 4 start leadscrew 100mm (min)	1	1 2 2 2 2 2	Fabreeko Aliexpress CNA (Dont mix/match suppliers) Aliexpress Aliexpress Aliexpress Amazon Ooznest Amazon			
Motion (main)	MGN15 rail 500mm MGN15 rail 500mm MGN15 rail 600mm MTN8C rail carriage TR8x8 4 start leadscrew 550mm (min) TR8x8 4 start leadscrew 550mm (min) TR8x8 4 start leadscrew 500mm (min) TR8x8 4 start leadscrew 500mm (min) TR8x8 4 start leadscrew 100mm (min)	1	1 2 2 2 2 2	Fabreeko Allexpress CNA (Don't mix/match, suppliera) Allexpress Allexpress Allexpress Allexpress Amazon Ooznest Amazon Allexpress			
Motion (main)	MON15 rail 250mm MON15 rail 250mm MON15 rail carriage TR8:8 4 start leadscrew 550mm (min) TR8:8 4 start leadscrew 550mm (min) TR8:8 4 start leadscrew 550mm (min) TR8:8 4 start leadscrew 500mm (min) TR8:8 4 star	1	1 2 2 2 2 2	Fabreeko Allexpress CNA (Don't mix/match suppliers) Allexpress Allexpress Allexpress Allexpress Amazon Ooznest Amazon Allexpress Allexpress Allexpress Allexpress Amazon Allexpress Allexpress Allexpress Allexpress			
Motion (main)	MGN15 rail 250mm MGN15 rail 250mm MGN15C rail adming TR8x8 4 start leadscrew 550mm (min) TR8x8 4 start leadscrew 550mm (min) TR8x8 4 start leadscrew 350mm (min) TR8x8 4 start leadscrew 300mm (min) TR8x8 4 start leadscrew 100mm (min) TR8x8 4 start	1	1 2 2 2 2 2	Fabreeko Allexpress CNA (Don't mix/match, suppliera) Allexpress Allexpress Amazon Ooznest Amazon Allexpress Allexpress Allexpress Allexpress Allexpress Allexpress Allexpress			
Motion (main)	MON15 rail 250mm MON15 rail 250mm MON15C rail carriage TR&4 4 start leadscrew 550mm (min) TR&6 4 start leadscrew 500mm leadscrew 6 start leadscrew 6	1	1 2 2 2 2 2	Fabreeko Allexpress CNA (Don't mix/match suppliers) Allexpress Allexpress Allexpress Allexpress Amazon Ooznest Amazon Allexpress Allexpress Allexpress Allexpress Amazon Allexpress Allexpress Allexpress Allexpress			
Motion (main) Action (main)	MON15 rail 250mm MON15 rail 250mm MON15C rail carriage TR&6 4 start leadscrew 550mm (min) TR&6 4 start leadscrew 550mm (min) TR&6 4 start leadscrew 550mm (min) TR&6 4 start leadscrew 300mm (min) TR&6 6 start brass leadscrew not GT2 20T (min wide) Pulsey (in 35mm(114 inch) bore) GT2 440 T (min wide) Pulsey (in 35mm(114 inch) bore) GE0 22 shielded deep grove ball bearing F60 22 shielded deep grove ball bearing Spider or rigid coupler 8mm to 6 35mm (114 inch) 8mm Bore locking clair Actylic Eclosure bottom panel 10411 Cable Chain - Openable (min)		1 2 2 2 2 2 1 1 1 1 1 6 6 1 1 8 8 4 4 2 6 6 1 1 3 3	Fabreeko Allexpress CNA (Don't mix/match, suppliera) Allexpress Allexpress Amazon Ooznest Amazon Allexpress Allexpress Allexpress Allexpress Allexpress Allexpress Allexpress			
Motion (main)	MGN15 rail 250mm MGN15 rail 250mm MGN15C rail carriage TRax84 4 start leadscrew 550mm (min) TRax84 4 start leadscrew 550mm (min) TRax84 4 start leadscrew 500mm (min) TRax84 4 start leadscrew 300mm (min) TRax84 4 start leadscrew 300mm (min) TRax84 4 start leadscrew 300mm (min) TRax84 4 start leadscrew 100mm leadsc	10	1 2 2 2 2 2 1 1 1 1 1 6 6 1 1 1 1 6 6 6 1 1 1 1	Fabreeko Allexpress CNA (Dont, miximatch, suppliers) Allexpress Allexpress Allexpress Amazon Ooznest Amazon Allexpress Allexpress Allexpress Allexpress Allexpress Allexpress ACCU			
Motion (main) Action (main)	MON15 rail 250mm MON15 rail 250mm MON15C rail carriage TR&6 4 start leadscrew 550mm (min) TR&6 4 start leadscrew 550mm (min) TR&6 4 start leadscrew 550mm (min) TR&6 4 start leadscrew 300mm (min) TR&6 6 start brass leadscrew not GT2 20T (min wide) Pulsey (in 35mm(114 inch) bore) GT2 440 T (min wide) Pulsey (in 35mm(114 inch) bore) GE0 22 shielded deep grove ball bearing F60 22 shielded deep grove ball bearing Spider or rigid coupler 8mm to 6 35mm (114 inch) 8mm Bore locking clair Actylic Eclosure bottom panel 10411 Cable Chain - Openable (min)	10	1 2 2 2 2 2 1 1 1 1 1 6 6 1 1 1 1 6 6 6 1 1 1 1	Fabreeko Allexpress CNA (Dont. mixmatch. supplierin) Allexpress Allexpress Allexpress Amazon Ooznest Amazon Allexpress Allexpress Amazon Allexpress Accu			
Motion (main)	MON15 rail 250mm MON15 rail 250mm MON15 rail 250mm MON15C rail carriage Tr8:8 4 start leadscrew 550mm (min) Tr8:8:6 4 start leadscrew 150mm (min)	10	1 2 2 2 2 2 1 1 1 1 1 6 6 1 1 8 8 4 4 2 6 6 1 1 3 3	Fabreeko Allexpress CNA (Dont. mixmatch. supplierin) Allexpress Allexpress Allexpress Amazon Ooznest Amazon Allexpress Allexpress Amazon Allexpress Accu			
Motion (man) Cables (man) Cables (man) Cables (man) Cables (man) Cables (man) Cables (man)	MGN15 rail 250mm MGN15 rail 250mm MGN15 rail 250mm MGN15C rail carriage TRax84 4 start leadscrew 550mm (min) TRax84 4 start leadscrew 550mm (min) TRax84 4 start leadscrew 500mm (min) TRax84 4 start leadscrew 300mm (min) TRax84 4 start leadscrew 300mm (min) TRax84 4 start leadscrew 100mm (min) TRAX84 4 star	10	1 2 2 2 2 2 2 2 1 1 1 1 1 6 6 6 1 1 1 8 8 4 4 2 2 6 6 6 1 1 3 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Fabreeko Alleszoress CNA (Don't mis/match, surpilera) Alleszoress			
Motion (main) Cables (main) Cables (main) Cables (main) Cables (main)	MON15 rail 250mm MON15 rail 250mm MON15 rail 250mm MON15 rail carriage Tr8bit 4 start leadscrew 550mm (min) Tr8bit 4 start leadscrew 150mm (min) Tr8bit 4 start leadscrew 150mm (min) Tr8bit 4 start leadscrew 150mm (14 inch) bore) G08 22 shielded deep growe ball bearing F608 22 shielded deep growe ball bearing Spilder or rigid coupler f8mm to 6.35mm (14 inch) 8mm Bore locitage claim to 6.35mm (14 inch) 8mm Bore locitage claim to 6.35mm (14 inch) Mon Cable Tise (less than 5mm wide) 18MWC (min) Mains wiring (reutral, line, ground) 20MWG Sillione or PTPE Cable (25th total) 24AWQ FTE Cable (50th total)	JST-FVDDF 1	1 2 2 2 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1	Fabreeko Allescoress CNA (Bon1, maximate), Menni, Marchaeko Allescoress Allesc			
Motion (main) Cables (main) Cables (main) Cables (main) Cables (main) Cables (main)	MGN15 rail 250mm MGN15 rail 250mm MGN15 rail 250mm MGN15C rail carriage TRack6 4 start leadscrew 550mm (min) TRack6 4 start leadscrew 550mm (min) TRack6 4 start leadscrew 500mm (min) TRack6 4 start leadscrew 300mm (lat) Track6 4 star	10 10 10 11 11 11 11 11 11 11 11 11 11 1	1 2 2 2 2 2 2 2 1 1 1 1 1 6 6 1 1 1 1 6 6 1 1 1 1	Fabronica Allectoress CNA (Don't miximatch, suppliers) Allectoress			
Motion (main) Cables (main)	MON15 rail 250mm MON15 rail 250mm MON15 rail 250mm MON15 rail carriage TR864 4 start leadscrew 550mm (min) TR868 4 start leadscrew 500mm (min) TR868 4 start leadscrew 100mm (114 inch) bore) CG12 40T (emm vide) Pulley (inch 100mm) CG2 40T (emm vide) Pulley (inch 100mm) Spale or rigid coupler 8mm to 6. 35mm (114 inch) 8mm Bore locitage class panel Actylic Eclosure bottom panel 10.11 Cable Chain - Openable (min) Nylon Cable Ties (less than 5mm vide) 12AWOS (silicone or PTFE Cable (25t total) 2AWOS Silicone or PTFE Cable (25t total) 2AWOS PTFE Cable (50t total) Tork Spade Terminal Insulated Crimp Receptical	JST-FVDDF 1 JST-FVDDF 1 JST-FVDDF 1	1 2 2 2 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1	Estrenko Alleszoress CNA (Don't, maximatch, Mon't, maximatch Alleszoress Alles			
Motion (main) Cables (main)	MGN15 rail 250mm MGN15 rail 250mm MGN15 rail 250mm MGN15C rail carriage TR8x84 4 start leadscrew 550mm (min) TR8x84 4 start leadscrew 550mm (min) TR8x84 4 start leadscrew 500mm (min) TR8x84 4 start leadscrew 300mm (min) TR8x84 4 start leadscrew 360mm (141 inch) bore) G082 25 mieledd deep groove ball bearing F082 25 mieledd deep groove ball bearing Spider or rigid coupler 8mm to 6:35mm (1/4 inch) 8mm Bore locking colar Arylic Ediosure bottom panel 10x11 Cable Chain - Openable (fm) Nylon Cable Ties, less stan 5mm wide) 18xWG (min) Mains wiring (neutral, line, ground) 20xWG S80coor PTFE Cable (258t total) 24xWG PTFE Cable (50ft total) Fork Spade Terminal Insulated Crimp Receptical Ferrule Cable Terminations STS Connector 2 Position	JST-FVDDF 1 JST-FVDDF 1 JST-EVDDF 1 NA	1 2 2 2 2 2 2 2 1 1 1 1 1 6 6 1 1 1 1 1	Fatherisch Allescoress ChA			
Motion (main) Cables (main)	MGN15 rail 250mm MGN15 rail 250mm MGN15 rail 250mm MGN15 rail carriage TR8-8 4 start leadscrew 550mm (min) TR8-8 4 start leadscrew 500mm (min) TR8-8 4 start leadscrew 300mm (min) TR8-8 4 start leadscrew 162 sta	JST-FVDDF 1 JST-FVDDF 1 JST-XCH NA	1 2 2 2 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1	Estrenko Alleszoress CNA (Don't, maximatch, Mon't, maximatch Alleszoress Alles			
Motion (main) Cables (main)	MGN15 rail 250mm MGN15	JST-FVDDF 1 JST-FVDDF 1 JST-EVDDF 1 NA	1 2 2 2 2 2 2 2 1 1 1 1 1 6 6 1 1 1 1 1	Fatherisch Allescoress ChA			
Motion (main) Cables (main)	MGN15 rail 250mm MGN15 rail 250mm MGN15 rail 250mm MGN15 rail carriage TR8-8 4 start leadscrew 550mm (min) TR8-8 4 start leadscrew 500mm (min) TR8-8 4 start leadscrew 300mm (min) TR8-8 4 start leadscrew 162 sta	JST-FVDDF 1 JST-FVDDF 1 NA JST-XH JST-XH	1 2 2 2 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1	Fatherisch Allescoress ChA			