Version 1

Unrotated

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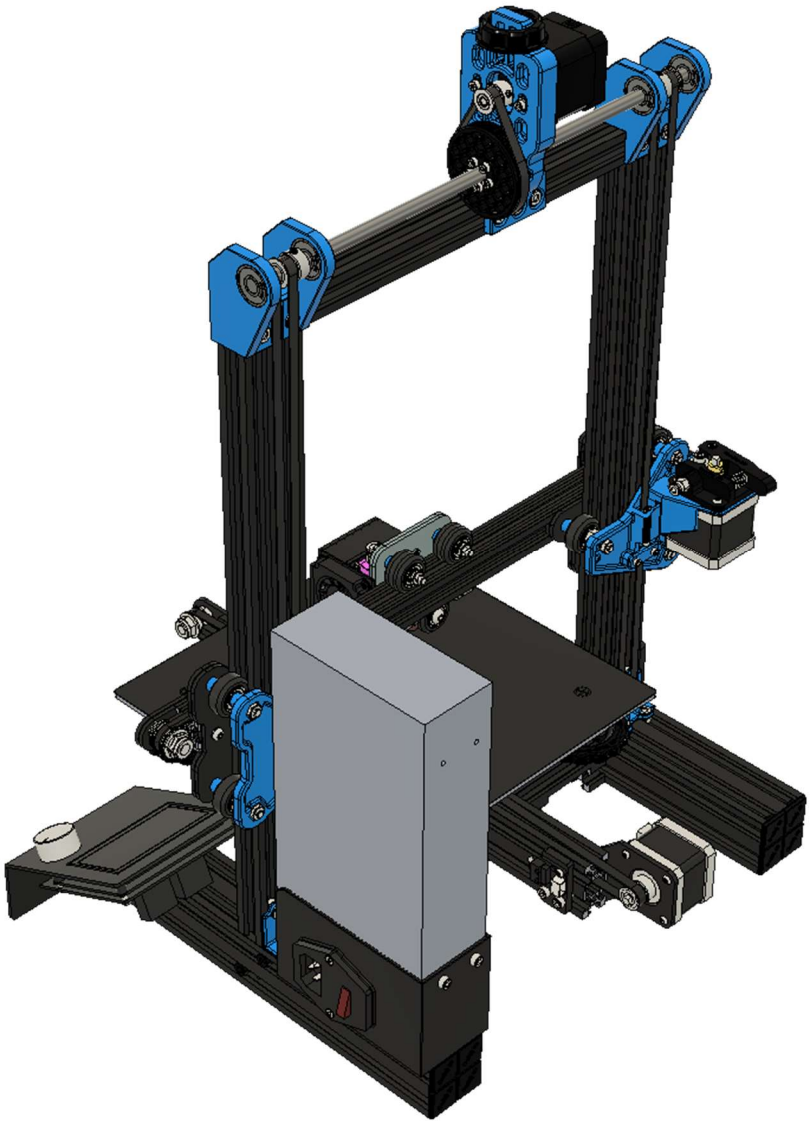
V-Rollers



Version: Unrotated + V-Rollers						
Category	**Component**	**Quantity**	**Reuse from**	**Notes**	**My Source**	**Alternative Source**
Motion	**20T** Pulley - **8mm** Bore	3	no	One for each side on the Rod, one for the printed 80T Gear.	Aliexpress	Aliexpress
	16T Pulley - **5mm** Bore	1	no	Motorshaft	Aliexpress	Aliexpress
	Gt2 Belt	2 Meter	no	Don't buy the cheapest. You should go for belts with glassfiber. Width: 6mm	Amazon Germany	Aliexpress
	188mm Looped Belt	1	no	Width: 6mm	Aliexpress	Aliexpress Affiliate Link Voron Guys
	F623ZZ 3*10*4 bearing	4	no	2 Pieces per side	Aliexpress	
	608ZZ Bearing	4 (5)	no	Do you have an old skateboard? You can steal the bearings from the wheels;) (5 for extra bearing in transmission body)	Aliexpress	Aliexpress
	8mm Rod	330 mm	yes/no	Theres no link, just go to your local hardware store and take a cheap 8mm (aluminium) rod. You don't have to buy a hardened steel one. (to expensive and hard to cut). You also could use your leadscrew.		
Fasteners	M5x8mm	15	no	Any type of M5x8mm screw can be used. I really like the openbuilds one	Aliexpress	
	M5x40mm	6	yes (3 x)	Screwhead must fit under the extrusion from the X-Axis. (Take a look at 5:20 of my video) You also could use a stock 40mm screw from the left side of the printer and place this on the inside of the right side. This way you can use any type of screwhead for the remaining holes.	Aliexpress	Aliexpress (cheaper)
	M5x30mm	4	no		Aliexpress	
	M5 T-nuts	15	no		Aliexpress	
	M3x30mm	2	no			
	M3x25mm	2	no			
	M3x16mm	10	no			
	M3x12mm	8	no	If you have no screws, you should buy a kit. Especially for the tensioner a longer screw can be good.	Aliexpress	
	M3x10mm	2	no			
	M3x6mm	5	no			
	M3 nuts	10	no			
Electronics	Motor extension cable	1	no	The original Cable is obviously too short^^ Check if the middle cables are crossed!!!	Aliexpress	
Printed Parts	RightV3	1	/	Thingiverse (Bowden-Version available)		
	LeftV3	1	/	Thingiverse (Bowden-Version available)		
	RightTop	1	/	Thingiverse		
	LeftTop	1	/	Thingiverse		
	RightBottom	1	/	Thingiverse		
	LeftBottom	1	/	Thingiverse		
	Spacer	3	/	Thingiverse		
	Tensioner Block	2	/	Thingiverse		
	TensionerClamp	2	/	Thingiverse		
	Transmission	1	/	Github		
	MotorMountTensionerArm	1	/	Github		
	ZDriveTensioningRing	1	/	Github		
	80TRingGear	1	/	Github		
Filament	Petg or ABS (+)	??kg	no	Yes you can use PLA, but you shouldn't ;)		

Version 2

Rotated

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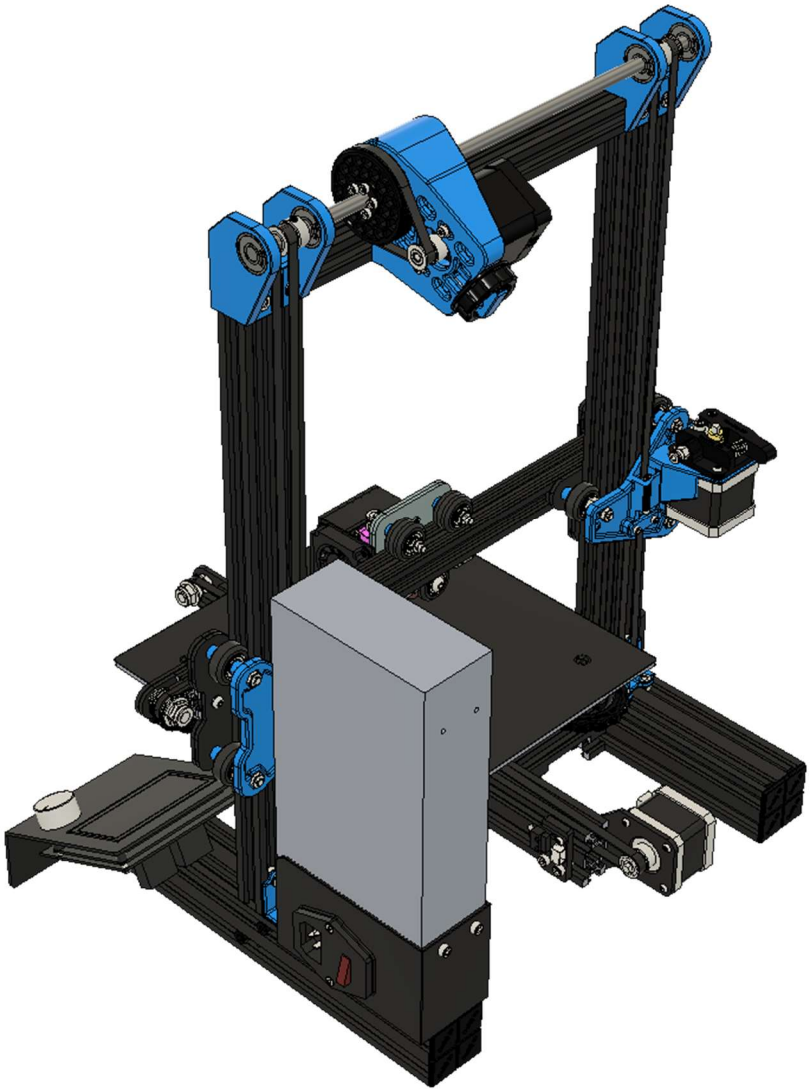
V-Rollers



Version: Rotated + V-Rollers						
Category	**Component**	**Quantity**	**Reuse from**	**Notes**	**My Source**	**Alternative Source**
Motion	**20T** Pulley - **8mm** Bore	3	no	One for each side on the Rod, one for the printed 80T Gear.	Aliexpress	Aliexpress
	16T Pulley - **5mm** Bore	1	no	Motorshaft	Aliexpress	Aliexpress
	Gt2 Belt	2 Meter	no	Don't buy the cheapest. You should go for belts with glassfiber. Width: 6mm	Amazon Germany	Aliexpress
	188mm Looped Belt	1	no	Width: 6mm	Aliexpress	Aliexpress Affiliate Link Voron Guys
	F623ZZ 3*10*4 bearing	4	no	2 Pieces per side	Aliexpress	
	608ZZ Bearing	4 (5)	no	Do you have an old skateboard? You can steal the bearings from the wheels;) (5 for extra bearing in transmission body)	Aliexpress	Aliexpress
	8mm Rod	330 mm	yes/no	Theres no link, just go to your local hardware store and take a cheap 8mm (aluminium) rod. You don't have to buy a hardened steel one. (to expensive and hard to cut). You also could use your leadscrew.		
Fasteners	M5x8mm	17	no	Any type of M5x8mm screw can be used. I really like the openbuilds one	Aliexpress	
	M5x40mm	6	yes (3 x)	Screwhead must fit under the extrusion from the X-Axis. (Take a look at 5:20 of my video) You also could use a stock 40mm screw from the left side of the printer and place this on the inside of the right side. This way you can use any type of screwhead for the remaining holes.	Aliexpress	Aliexpress (cheaper)
	M5x30mm	4	no		Aliexpress	
	M5 T-nuts	17	no		Aliexpress	
	M3x30mm	2	no			
	M3x25mm	2	no			
	M3x16mm	10	no			
	M3x12mm	8	no	If you have no screws, you should buy a kit. Especially for the tensioner a longer screw can be good.	Aliexpress	
	M3x10mm	2	no			
	M3x6mm	5	no			
	M3 nuts	10	no			
Electronics	Motor extension cable	1	no	The original Cable is obviously too short^^ Check if the middle cables are crossed!!!	Aliexpress	
Printed Parts	RightV3	1	/	Thingiverse (Bowden-Version available)		
	LeftV3	1	/	Thingiverse (Bowden-Version available)		
	RightTop	1	/	Thingiverse		
	LeftTop	1	/	Thingiverse		
	RightBottom	1	/	Thingiverse		
	LeftBottom	1	/	Thingiverse		
	Spacer	3	/	Thingiverse		
	Tensioner Block	2	/	Thingiverse		
	TensionerClamp	2	/	Thingiverse		
	Transmission	1	/	Github		
	MotorMountTensionerArm	1	/	Github		
	ZDriveTensioningRing	1	/	Github		
	80TRingGear	1	/	Github		
Filament	Petg or ABS (+)	??kg	no	Yes you can use PLA, but you shouldn't ;)		

Version 3

Unrotated

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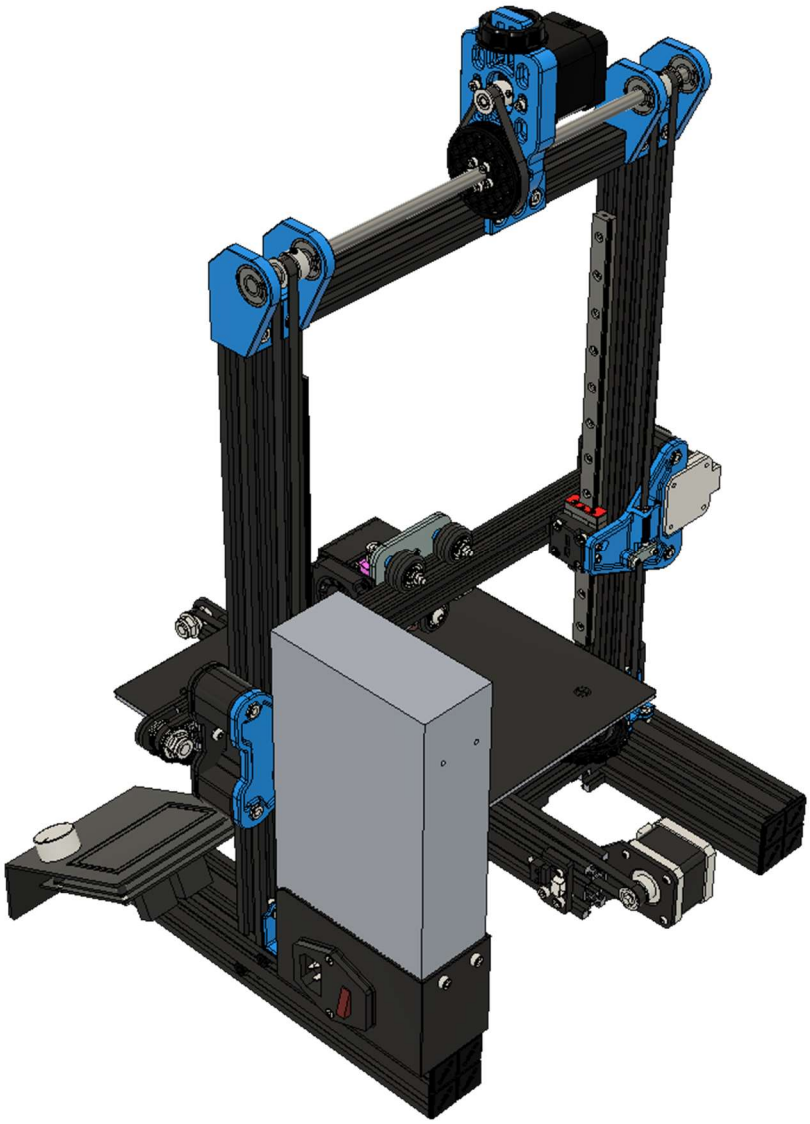
MGN-12H



Version: Unrotated + MGN						
Category	**Component**	**Quantity**	**Reuse from**	**Notes**	**My Source**	**Alternative Source**
Motion	**20T** Pulley - **8mm** Bore	3	no	One for each side on the Rod, one for the printed 80T Gear.	Aliexpress	Aliexpress
	16T Pulley - **5mm** Bore	1	no	Motorshaft	Aliexpress	Aliexpress
	Gt2 Belt	2 Meter	no	Don't buy the cheapest. You should go for belts with glassfiber. Width: 6mm	Amazon Germany	Aliexpress
	188mm Looped Belt	1	no	Width: 6mm	Aliexpress	Aliexpress Affiliate Link Voron Guys
	F623ZZ 3*10*4 bearing	4	no	2 Pieces per side	Aliexpress	
	608ZZ Bearing	4 (5)	no	Do you have an old skateboard? You can steal the bearings from the wheels;) (5 for extra bearing in transmission body)	Aliexpress	Aliexpress
	8mm Rod	330 mm	yes/no	Theres no link, just go to your local hardware store and take a cheap 8mm (aluminium) rod. You don't have to buy a hardened steel one. (to expensive and hard to cut). You also could use your leadscrew.		
	300mm MGN Rail	2	no	Don't buy the cheapest.		
Fasteners	M5x8mm	15	no	Any type of M5x8mm screw can be used. I really like the openbuilds one	Aliexpress	
	M5x40mm	1	yes		Aliexpress	Aliexpress (cheaper)
	M5x30mm	4	no		Aliexpress	
	M5 T-nuts	15	no		Aliexpress	
	M3x30mm	2	no			
	M3x25mm	2	no			
	M3x20mm	4	no			
	M3x16mm	10	no			
	M3x12mm	8	no	If you have no screws, you should buy a kit. Especially for the tensioner a longer screw can be good.	Aliexpress	
	M3x10mm	10	no			
	M3x8mm	24	no	You will need these to mount the rails. All holes: 12 per rail. You can use less, minimum 4 per rail.		
	M3x6mm	5	no			
	M3 nuts	14	no			
	M3 T-nuts	24	no	You will need these to mount the rails. All holes: 12 per rail. You can use less, minimum 4 per rail.		
Electronics	Motor extension cable	1	no	The original Cable is obviously too short^^ Check if the middle cables are crossed!!!	Aliexpress	
Printed Parts	RightV3	1	/	Thingiverse (Bowden-Version available)		
	LeftV3	1	/	Thingiverse (Bowden-Version available)		
	RightTop	1	/	Thingiverse		
	LeftTop	1	/	Thingiverse		
	RightBottom	1	/	Thingiverse		
	LeftBottom	1	/	Thingiverse		
	Spacer_Right (MGN folder)	1	/	Thingiverse		
	Spacer_Left (MGN folder)	1	/	Thingiverse		
	Right (MGN folder)	1	/	Thingiverse		
	Left (MGN folder)	1	/	Thingiverse		
	DistanceBracket	2	/	Thingiverse - you will need this to align the rails. Just take a look at my video.		
	Tensioner Block	2	/	Thingiverse		
	TensionerClamp	2	/	Thingiverse		
	Transmission	1	/	Github		
	MotorMountTensionerArm	1	/	Github		
	ZDriveTensioningRing	1	/	Github		
	80TRingGear	1	/	Github		
Filament	Petg or ABS (+)	??kg	no	Yes you can use PLA, but you shouldn't ;)		

Version 4

Rotated

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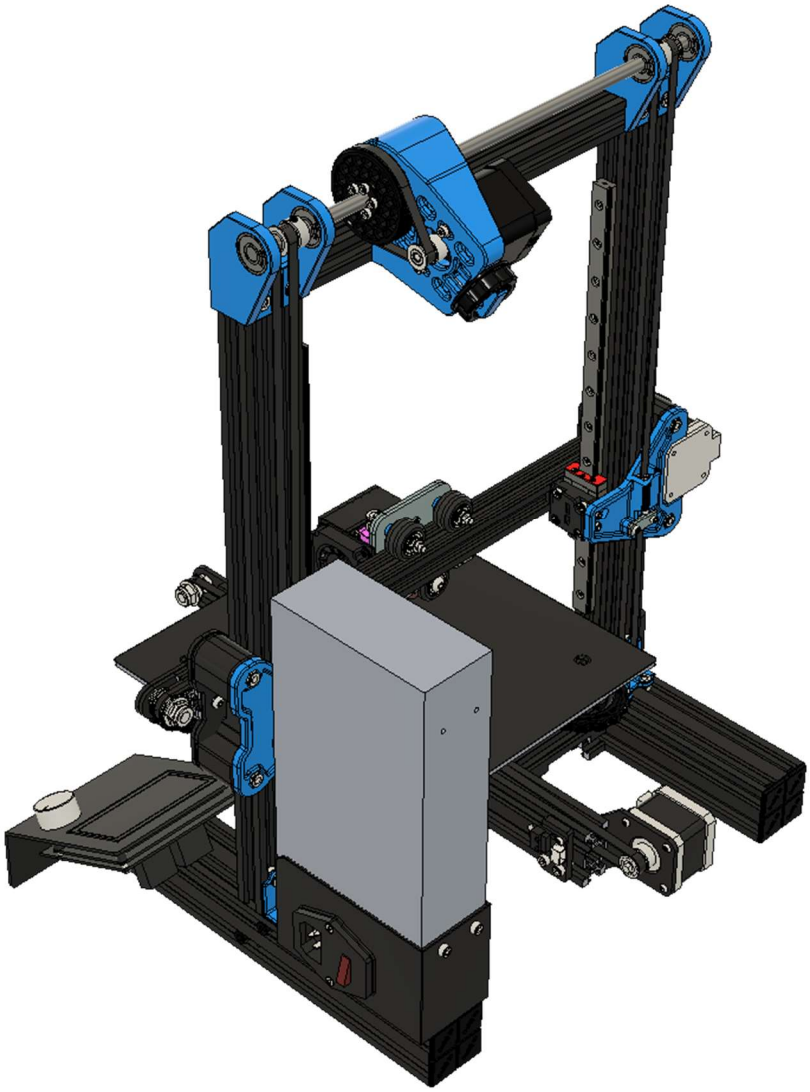
MGN-12H



Version: Rotated + MGN						
Category	**Component**	**Quantity**	**Reuse from**	**Notes**	**My Source**	**Alternative Source**
Motion	**20T** Pulley - **8mm** Bore	3	no	One for each side on the Rod, one for the printed 80T Gear.	Aliexpress	Aliexpress
	16T Pulley - **5mm** Bore	1	no	Motorshaft	Aliexpress	Aliexpress
	Gt2 Belt	2 Meter	no	Don't buy the cheapest. You should go for belts with glassfiber. Width: 6mm	Amazon Germany	Aliexpress
	188mm Looped Belt	1	no	Width: 6mm	Aliexpress	Aliexpress Affiliate Link Voron Guys
	F623ZZ 3*10*4 bearing	4	no	2 Pieces per side	Aliexpress	
	608ZZ Bearing	4 (5)	no	Do you have an old skateboard? You can steal the bearings from the wheels;) (5 for extra bearing in transmission body)	Aliexpress	Aliexpress
	8mm Rod	330 mm	yes/no	Theres no link, just go to your local hardware store and take a cheap 8mm (aluminium) rod. You don't have to buy a hardened steel one. (to expensive and hard to cut). You also could use your leadscrew.		
	300mm MGN Rail	2	no	Don't buy the cheapest.		
Fasteners	M5x8mm	17	no	Any type of M5x8mm screw can be used. I really like the openbuilds one	Aliexpress	
	M5x40mm	1	yes		Aliexpress	Aliexpress (cheaper)
	M5x30mm	4	no		Aliexpress	
	M5 T-nuts	17	no		Aliexpress	
	M3x30mm	2	no			
	M3x25mm	2	no			
	M3x20mm	4	no			
	M3x16mm	10	no			
	M3x12mm	8	no	If you have no screws, you should buy a kit. Especially for the tensioner a longer screw can be good.	Aliexpress	
	M3x10mm	10	no			
	M3x8mm	24	no	You will need these to mount the rails. All holes: 12 per rail. You can use less, minimum 4 per rail.		
	M3x6mm	5	no			
	M3 nuts	14	no			
	M3 T-nuts	24	no	You will need these to mount the rails. All holes: 12 per rail. You can use less, minimum 4 per rail.		
Electronics	Motor extension cable	1	no	The original Cable is obviously too short^^ Check if the middle cables are crossed!!!	Aliexpress	
Printed Parts	RightV3	1	/	Thingiverse (Bowden-Version available)		
	LeftV3	1	/	Thingiverse (Bowden-Version available)		
	RightTop	1	/	Thingiverse		
	LeftTop	1	/	Thingiverse		
	RightBottom	1	/	Thingiverse		
	LeftBottom	1	/	Thingiverse		
	Spacer_Right (MGN folder)	1	/	Thingiverse		
	Spacer_Left (MGN folder)	1	/	Thingiverse		
	Right (MGN folder)	1	/	Thingiverse		
	Left (MGN folder)	1	/	Thingiverse		
	DistanceBracket	2	/	Thingiverse - you will need this to align the rails. Just take a look at my video.		
	Tensioner Block	2	/	Thingiverse		
	TensionerClamp	2	/	Thingiverse		
	Transmission	1	/	Github		
	MotorMountTensionerArm	1	/	Github		
	ZDriveTensioningRing	1	/	Github		
	80TRingGear	1	/	Github		
Filament	Petg or ABS (+)	??kg	no	Yes you can use PLA, but you shouldn't ;)		