

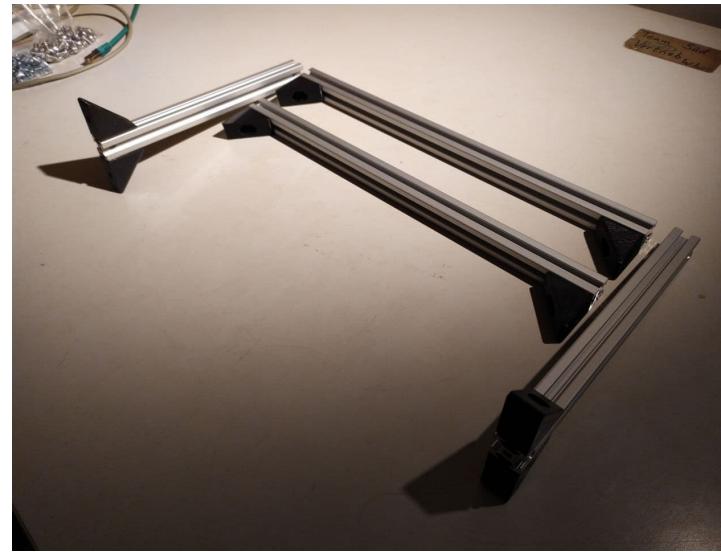
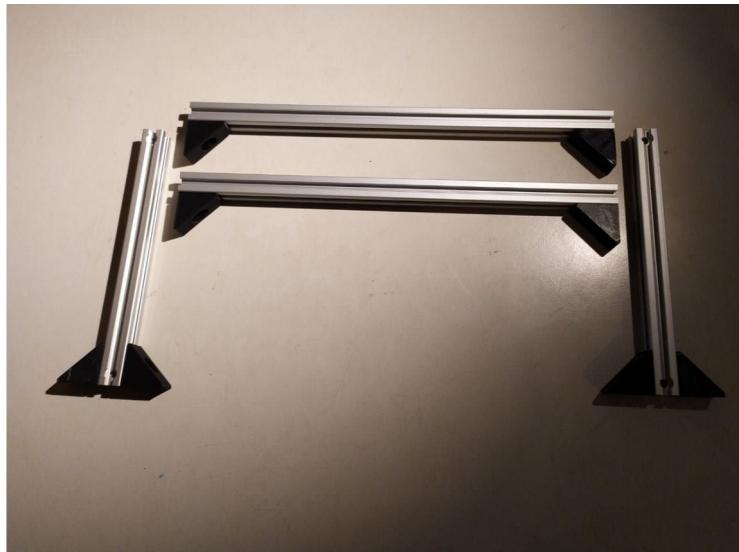
## Subassembly-BOM Maker's Mill MM1 Desktop-Fräse V1.02, UniProKit UPKlib V2.06

### Rahmen



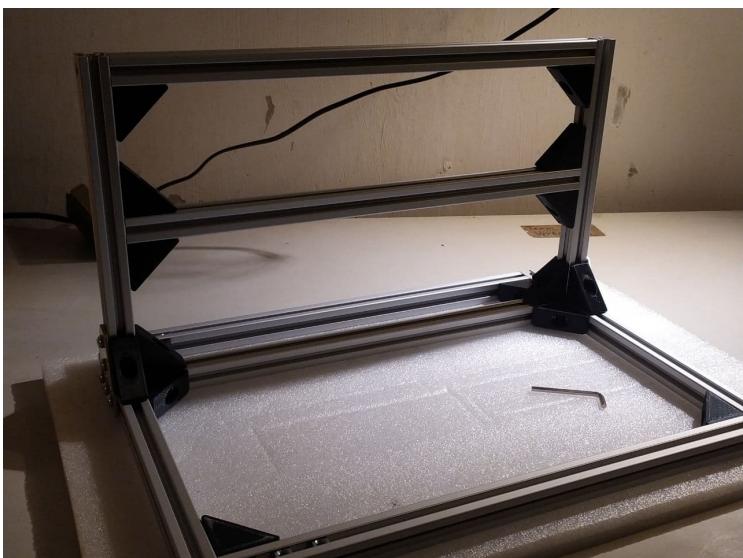
### Y-Base

Name	Bauteil/A.-Nr.	Stück	Funktion
Tslot32con	17092218	2	T-Slot Con, 320x20x20mm
Tslot40	17092208	3	T-Slot Nut 6, 400x20x20mm
RAconnector	17092313	8	90° Versteifungswinkel
M6nutplate	17092309	45	für TSlot, Slot6, M6 (for position see table below)
M6x25cyl	17092307	4	25mm, M6 DIN 7984
M6x12	17092304	14	12mm, M6 ISO 7380
M6x8	17092303	8	8mm, M6 ISO 7380
EndCap1d	17092315	8	Endkappe (4 at the corners and 4 underneath as machine-feet)



#### X-Gantry

Name	Bauteil/A.-Nr.	Stück	Funktion
Tslot40	17092208	2	T-Slot Nut 6, 400x20x20mm
Tslot24con	17092217	2	T-Slot Con, 240x20x20mm
RAconnector	17092313	8	90° Versteifungswinkel
M6nutplate	17092309	17	für TSlot, Slot6, M6
M6x25cyl	17092307	2	25mm, M6 DIN 7984
M6x12	17092304	22	12mm, M6 ISO 7380
M6x8	17092303	4	8mm, M6 ISO 7380
TCon	17092302	2	Flach, 60x60x4mm
M6x8	17092303	2	8mm, M6 ISO 7380
EndCap1d	17092315	2	Endkappe (on top)

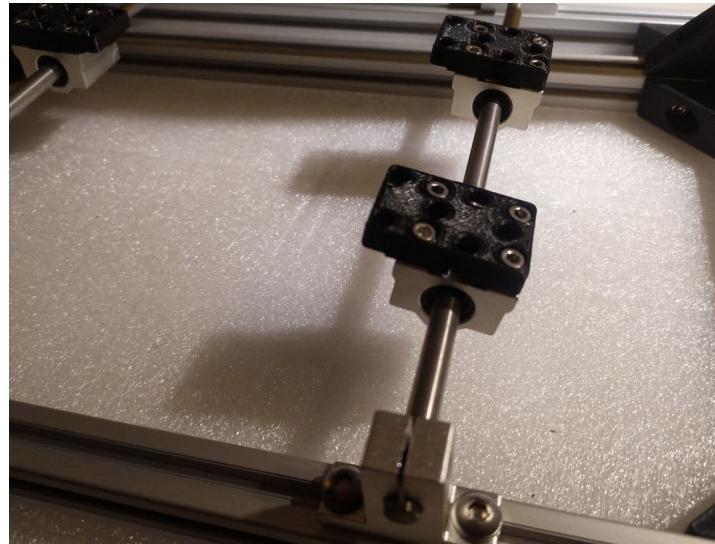


#### M6-nutplate-positions for y-base

quantity	view	position	function
4	front-tslot	topside	2x2 SK8
5	front-tslot	frontside	endplate, endstopmount
2	front-tslot	backside	2x1 raconnector
4	back-tslot	backside	mountplate_small
4	back-tslot	topside	2x2 SK8
2	back-tslot	frontside	2x1 raconnector
3	left-tslot	leftside	tcon
2	left-tslot	topside	2x1 raconnector
3	left-tslot	rightside	3x1 raconnector
2	left-tslot	bottomside	2x1 machinefeet
3	right-tslot	rightside	tcon
2	right-tslot	topside	2x1 raconnector
3	right-tslot	leftside	3x1 raconnector
2	right-tslot	rightside	2x1 machinefeet
2	middle-tslot	frontside	2x1 raconnector
2	middle-tslot	topside	2x1 raconnector
<b>45</b>			

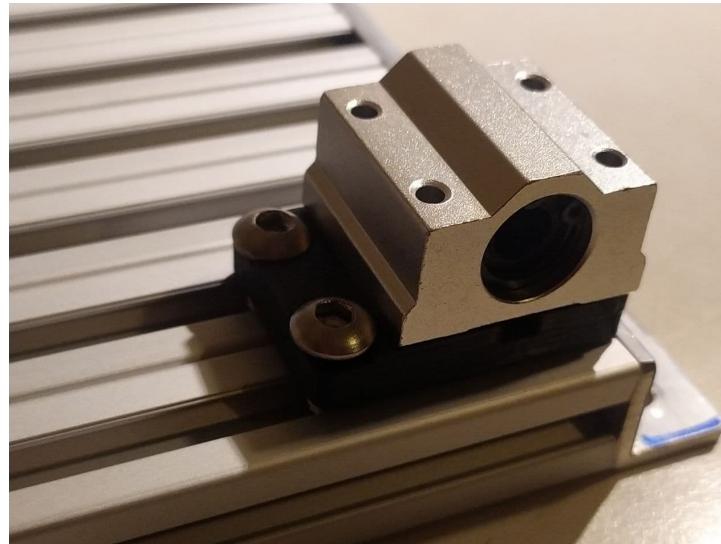
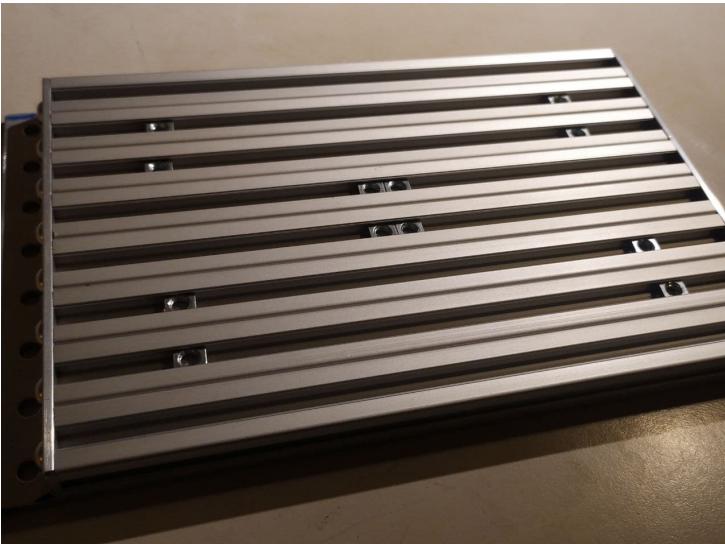
<== the picture shows the older V.05 version of the frame, but the x-gantry-frame should look like in the picture above.

## Y-Achse



## Y-Achse

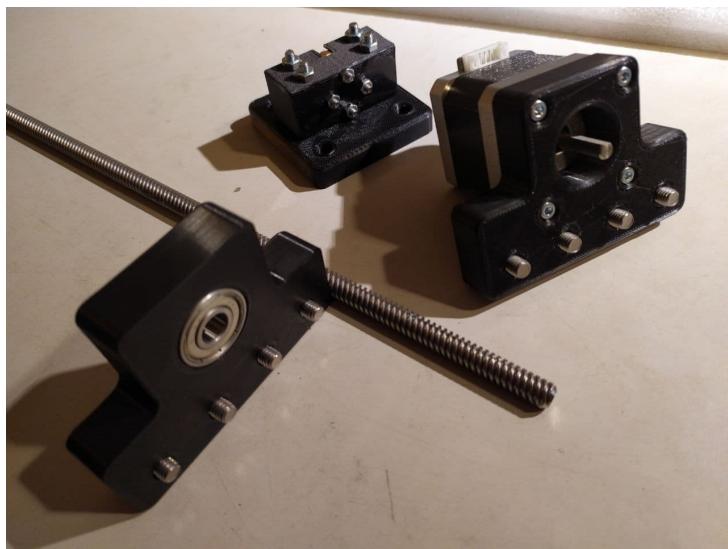
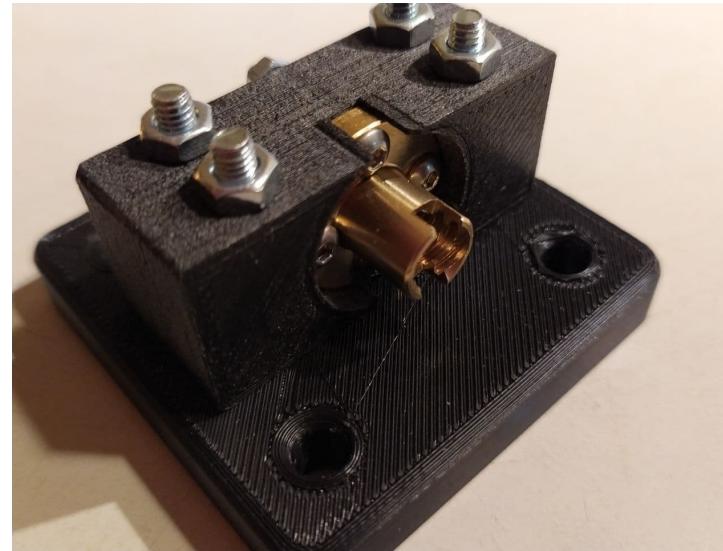
Name	Bauteil/A.-Nr.	Stück	Funktion
Shaft8x320	21011003	2	Welle, 8x320mm
SK8	19082008	4	Lagerbock, 8mm
SC8UU	19082002	4	LM8UU-Block
LM8UU	19082206	4	LM8UU Linearbearing
M6x12	17092304	12	12mm, M6 ISO 7380
M6wash	17092310	4	6.4x12x1.6, DIN 125
Tslot24	17092206	8	T-Slot Nut 6, 240x20x20mm
Angle16	17092228	2	L-Profil, 160x20x20mm
M6x8	17092303	16	8mm, M6 ISO 7380
SC8UU-adapter2g	21090301	4	SC8UU-UPK-Adapter f. MM1 u. MF1
M6nutplate	17092309	18	für TSlot, Slot6, M6
M4x10cyl	21090302	16	10mm, M4 ISO 4762
M6x12	17092304	8	12mm, M6 ISO 7380

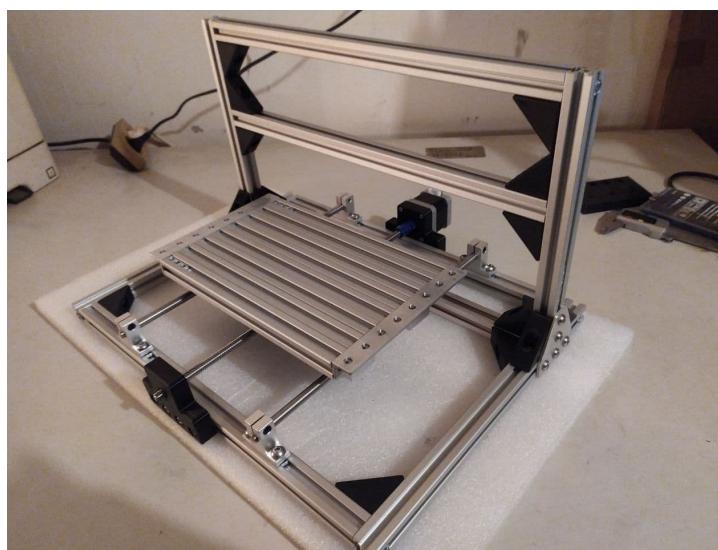
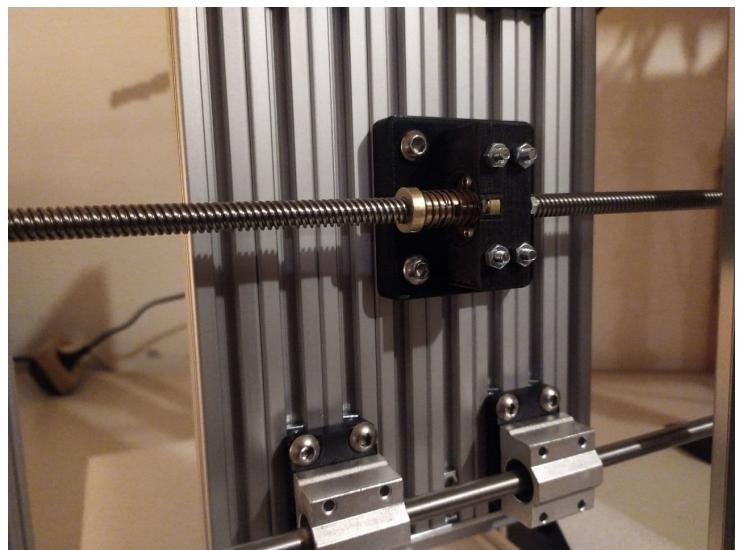
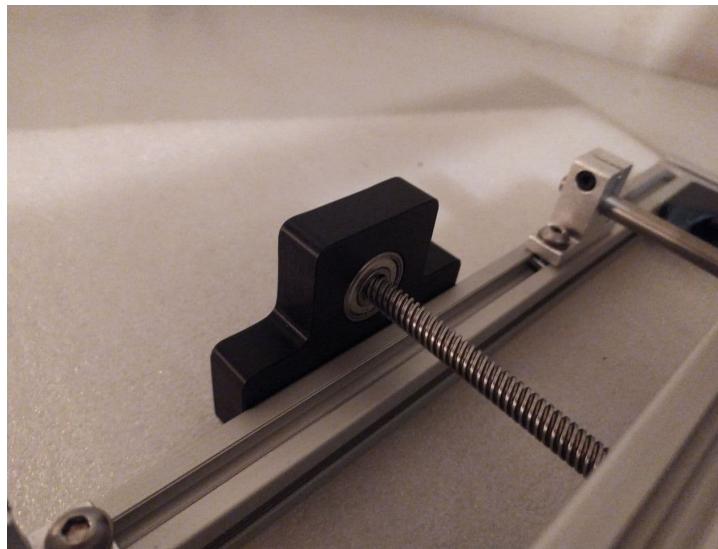
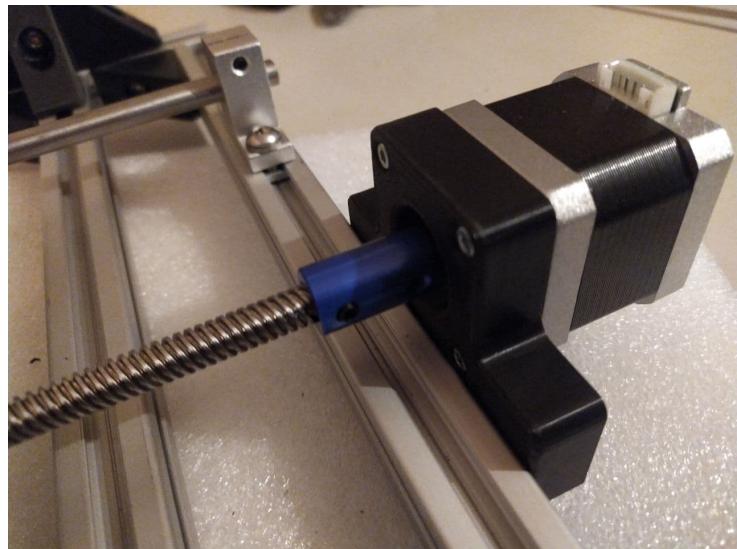


## Y-Trapezgewinde-Antrieb

### Y-Trapezgewinde-Antrieb

Name	Bauteil/A.-Nr.	Stück	Funktion
Nutblock1h	19070623	1	Spindelmutterblock
M3x20cyl	19082011	4	20mm, M3 ISO 4762
M3nut	19081701	4	M3 Mutter
M4x35cyl	19082014	4	35mm, M4 ISO 4762
M4nut	19070613	4	M4 Nut
Nutblockadapter	21090303	1	Adapter für Spindelmutterblock an UPK
Trapezoidal_nut_AntiB	21090304	1	Trapezspindelmutter, 8mm, Antibacklash
Trapezoidal_nut_AntiB-spring	21090305	1	Feder f. Antibacklash-Trapezmutter 8mm
Trapezoidal-thread_320	21090306	1	Trapezspindel, 8mm
Mountplate_small1b	21090307	1	Stepper-Montageplatte
608ZZ_Ball_Bearing	19082001	1	Kugellager, 8mm innen
M6x16	17092305	8	16mm, M6 ISO 7380
Endplate_small1b	21090308	1	Endlager. lose
Nema17_40con	19082022	1	Steppermotor, NEMA17, 0.42 Nm
M3x16cyl	19082010	4	16mm, M3 ISO 4762
Rigidcoupler-5-8	21090309	1	starre Wellenkupplung
M4x4lockscrew	21090310	4	M4x4 Madenschraube





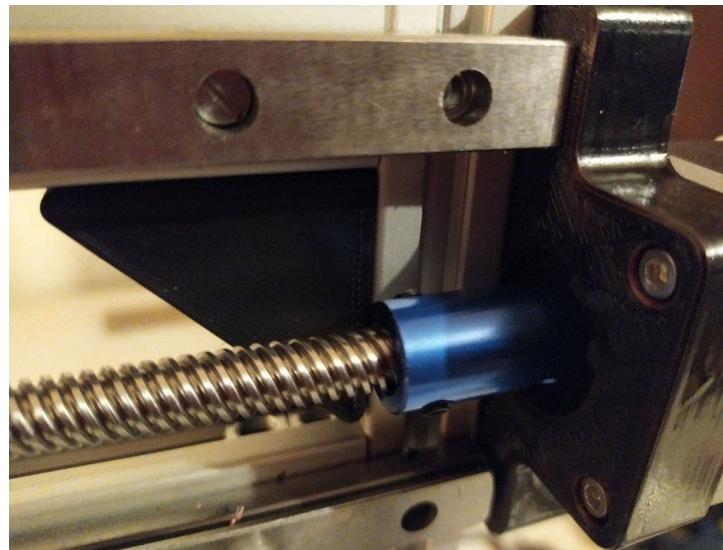
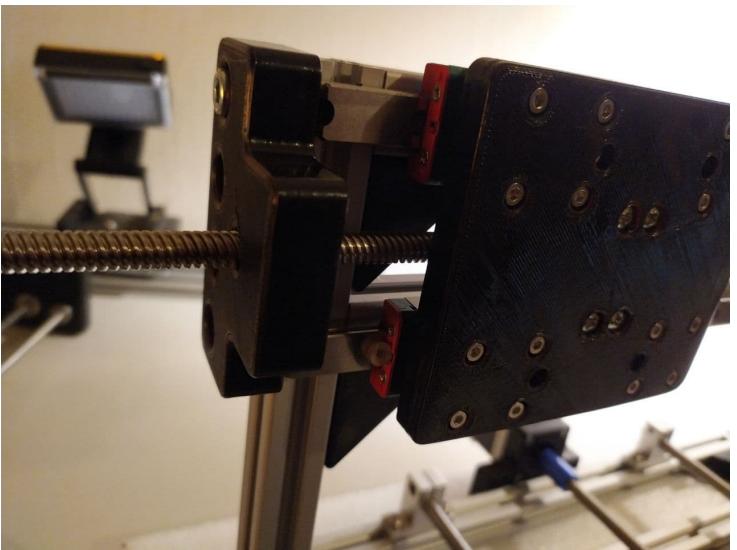
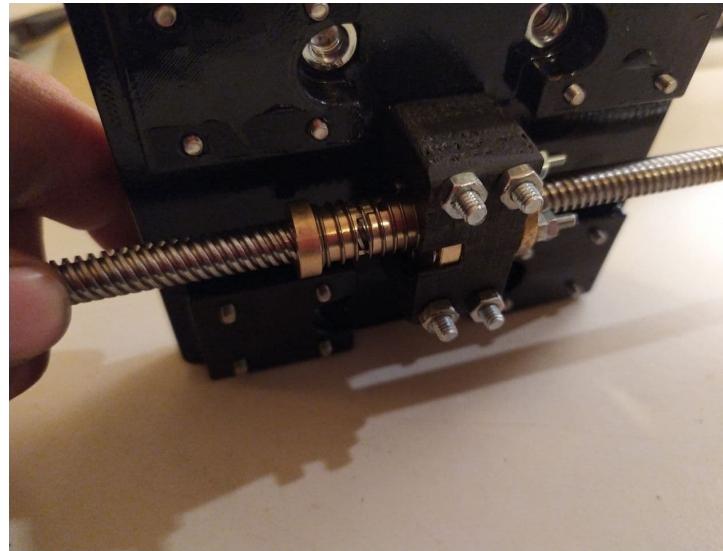
**X-Achse, MGN12H**

Name	Bauteil/A.-Nr.	Stück	Funktion
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**X-Achse, MGN12H**

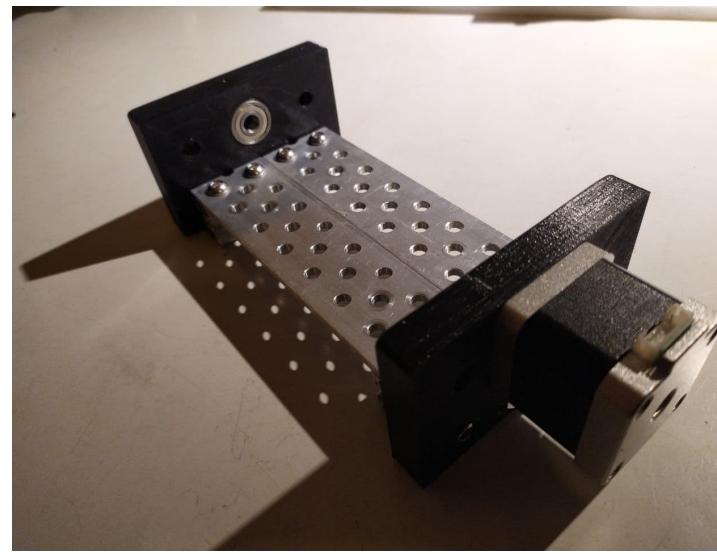
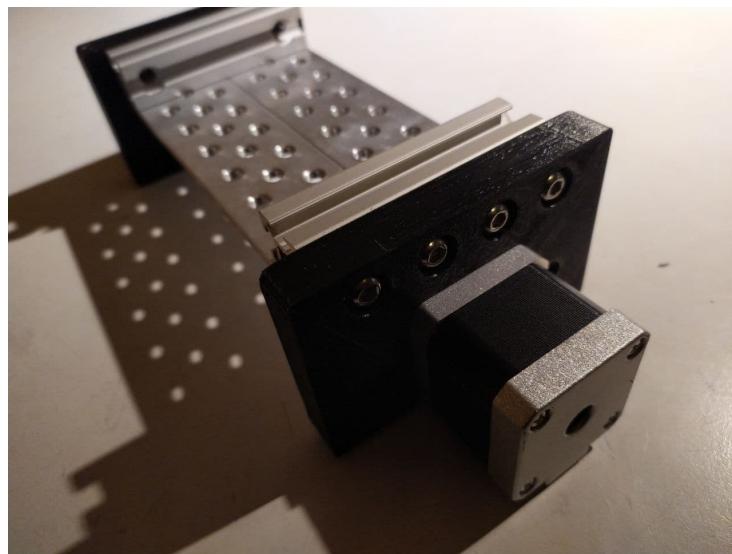
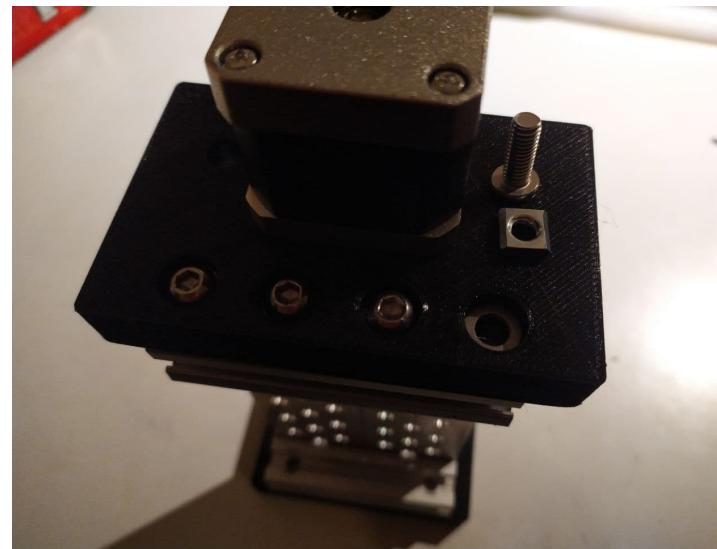
Mountplate_mgn12c	21032801	1	Stepper-Montageplatte f. mgn12
Endplate_mgn12	21032802	1	Loslager-Platte f. mgn12
608ZZ_Ball_Bearing	19082001	1	Kugellager
M6x40cyl	19082015	2	40mm, M6 ISO 4762
M6x16	17092305	5	16mm, M6 ISO 7380
Mgn12h-block	21032804	4	carriage for MGN12H-rails
Mgn12h-rail-435	21032805	2	435mm MGN12H-rail
M3x8cyl	21032807	32	8 mm, M3 ISO 4762
Hammermutter-m3	21032803	32	Hammermutter, M3, Slot6
Nutblock1i	21032808	1	Spindelmutterblock mit Senkmuttern
M3x30cyl	21032809	4	30 mm, M3 ISO 4762
M4x30cyl	19082013	4	30mm, M4 ISO 4762
M4nut	19070613	4	M4 Nut
Trapezoidal_thread_480	19082006	1	Trapezspindel, 8mm
Trapezoidal_nut_AntiB	21090304	2	Trapezspindelmutter, 8mm, Antibacklash
Trapezoidal_nut_AntiB-spring	21090305	2	Feder f. Antibacklash-Trapezmutter 8mm
M3x16cyl	19082010	4	16mm, M3 ISO 4762
Nema17_40con	19082022	1	Steppermotor, NEMA17, 0.42 Nm
Rigidcoupler-5-8	21090309	1	starre Wellenkupplung
M4x4lockscrew	21090310	4	M4x4 Madenschraube
Carriageplate-mgn12b	21032810	1	Schlittenplatte f. MGN12
M3x16cyl	19082010	16	16mm, M3 ISO 4762
M6nut	17092308	4	5.6x10mm, M6 DIN934

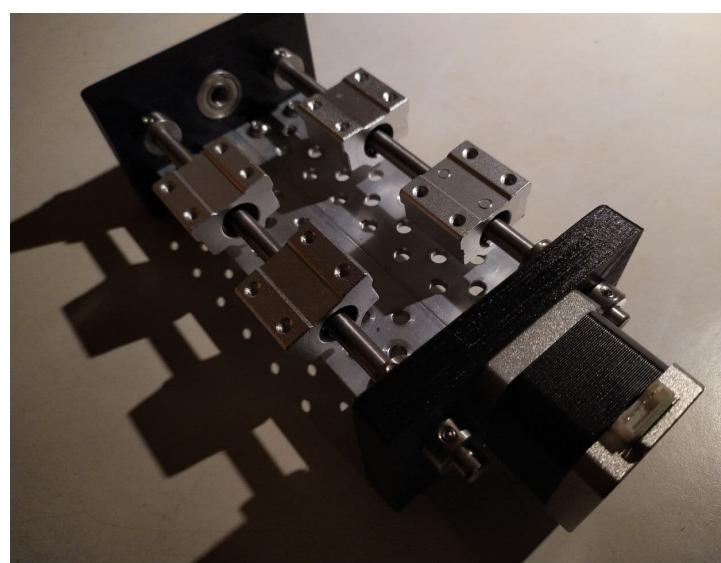
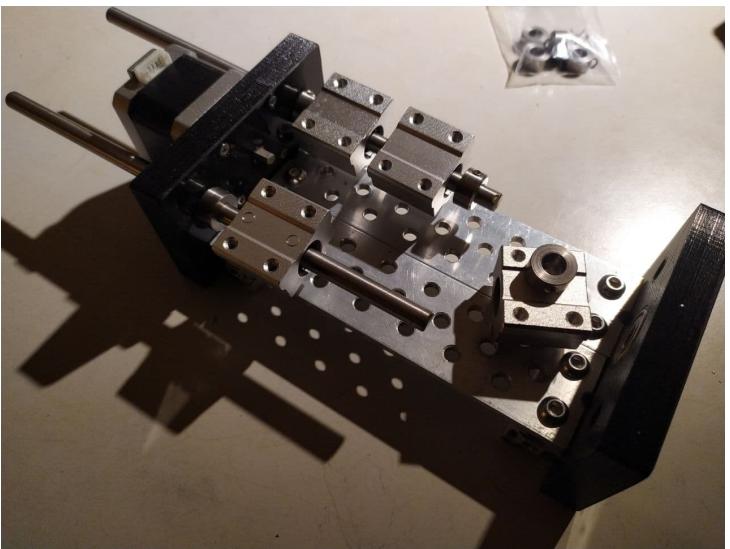
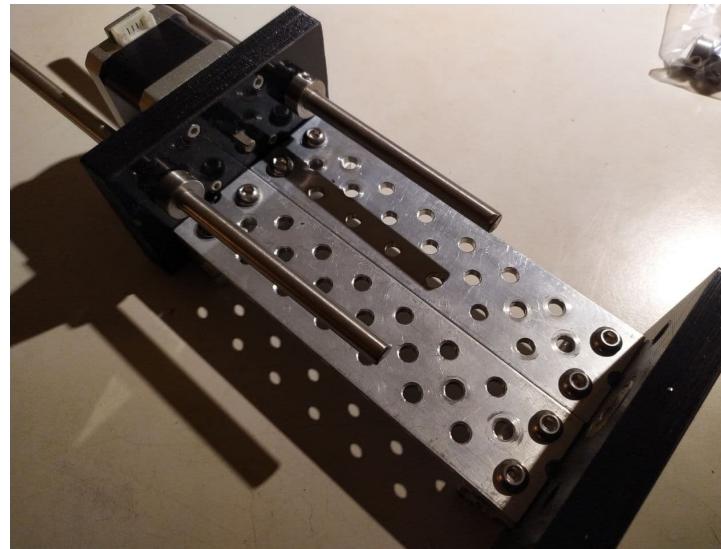


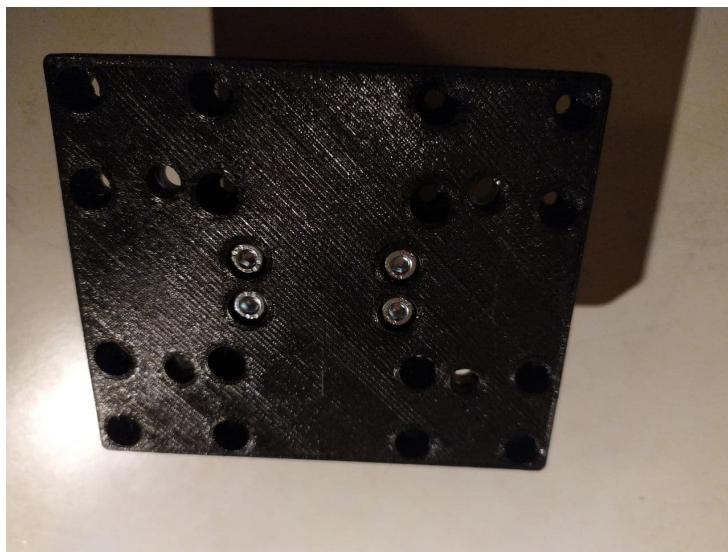
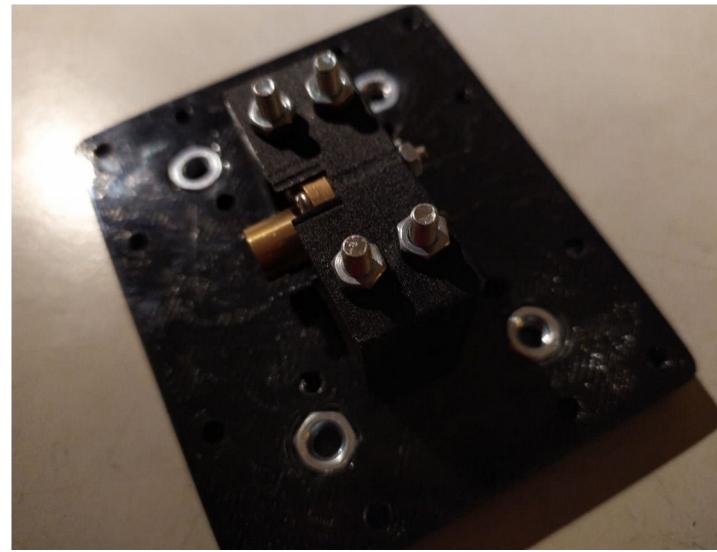


## Z-Achse

Name	Bauteil/A.-Nr.	Stück	Funktion
<b>Z-Achse</b>			
Mountplate3d	21040802	1	Motorplatte links
Endplate1b_sunken	21031301	1	Loslager-Platte versenkt
608ZZ_Ball_Bearing	19082001	1	Kugellager
M6wash	17092310	8	6.4x12x1.6, DIN 125
M6x16	17092305	8	16mm, M6 ISO 7380
M6nutplate	17092309	16	für TSlot, Slot6, M6
Flat16	17092239	2	Flach, 160x40x4mm
Tslot8	17092203	2	T-Slot Nut 6, 80x20x20mm
M6x8	17092303	12	8mm, M6 ISO 7380
EndCap1d	17092315	4	Endkappe
Carriageplate	19070624	1	Schlittenplatte
M6nut	17092308	4	5.6x10mm, M6 DIN934
SC8UU	19082002	4	LM8UU-Block
LM8UU	19082206	4	LM8UU Linearbearing
M4x10cyl	21090302	16	10mm, M4 ISO 4762
Shaft8x210	20092405	2	Welle, 210mm (Sondergröße)
Adjustring8mm	21031001	8	Stellring
M3x16cyl	19082010	4	16mm, M3 ISO 4762
Nema17_40con	19082022	1	Steppermotor, NEMA17, 0.42 Nm
Trapezoidal_nut_AntiB	21090304	1	Trapezspindelmutter, 8mm, Antibacklash
Trapezoidal_nut_AntiB-spring	21090305	1	Feder f. Antibacklash-Trapezmutter 8mm
Trapezoidal_thread_160	20092406	1	Trapezspindel, 160x8mm
Nutblock1h	19070623	1	Spindelmutterblock
M3x20cyl	19082011	4	20mm, M3 ISO 4762
M3nut	19081701	4	M3 Mutter
M4x30cyl	19082013	4	30mm, M4 ISO 4762
M4nut	19070613	4	M4 Nut
M4x4lockscrew	21090310	4	M4x4 Madenschraube
Rigidcoupler-5-8	21090309	1	starre Wellenkupplung



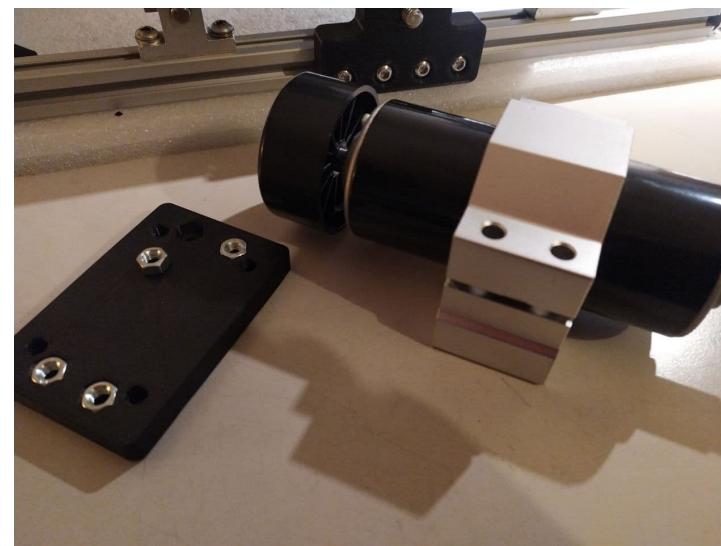
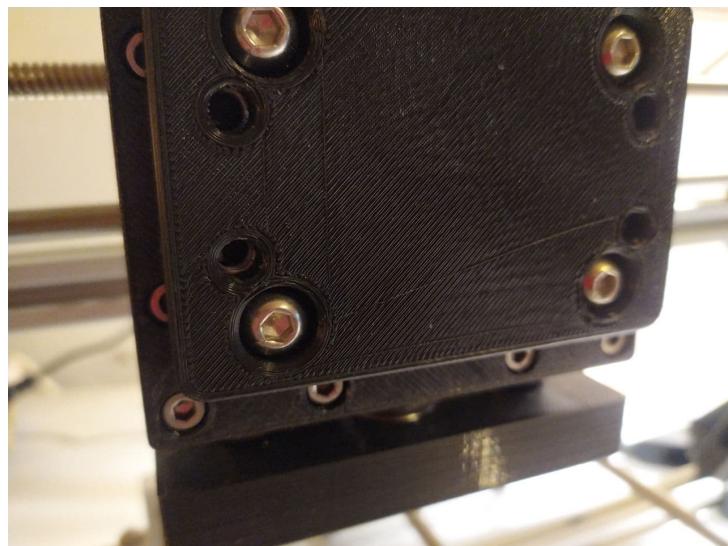


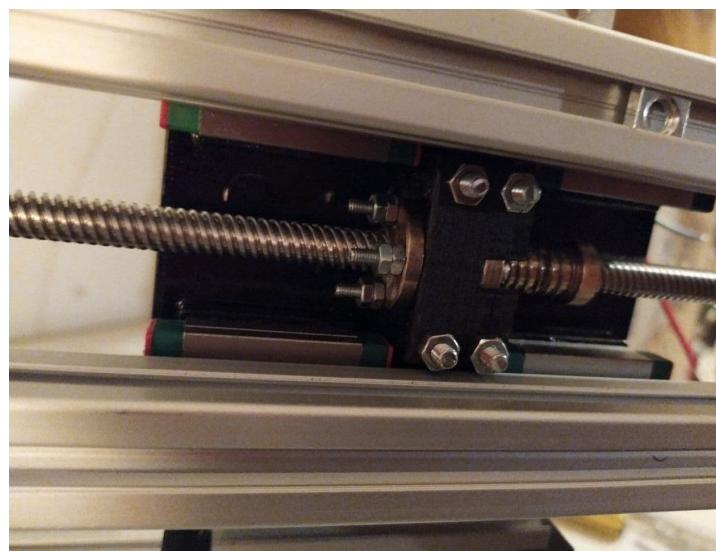
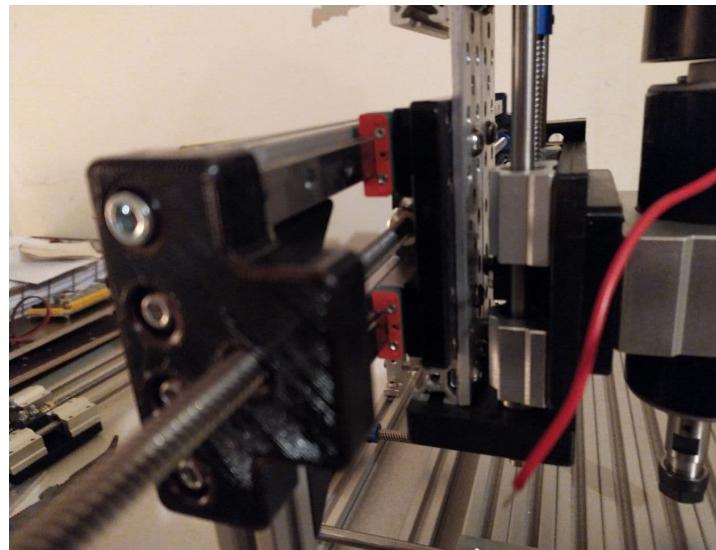
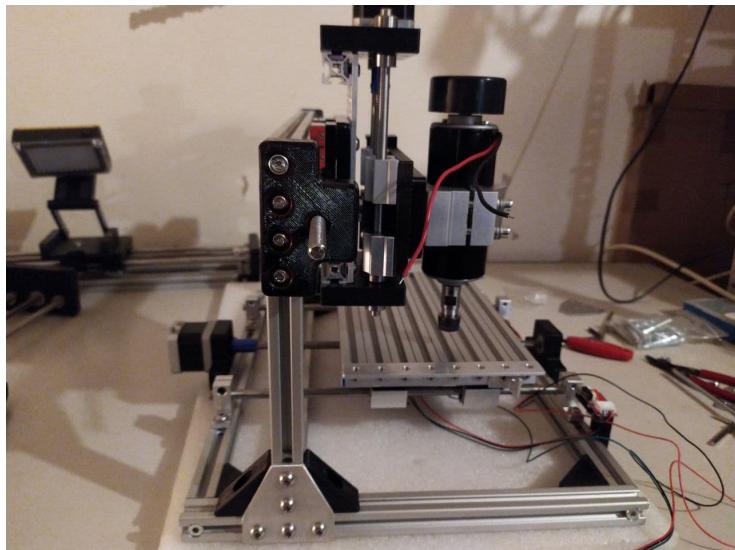


Name	Bauteil/A.-Nr.	Stück	Funktion
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### Spindel

Spindelmount_adapter1c	21031005	1	Adapter für Spindel-Klemme
M6nut	17092308	4	5.6x10mm, M6 DIN934
M6x12	17092304	8	12mm, M6 ISO 7380
M6x65cyl	21031002	4	65mm, M6 ISO 7380
spindelmount52mm	21031003	1	Halter für 500W-Spindel, 52mm
spindel500w	21031004	1	500W, 100V, 12000 rpm, 0.5 Nm, 1.08 Kg



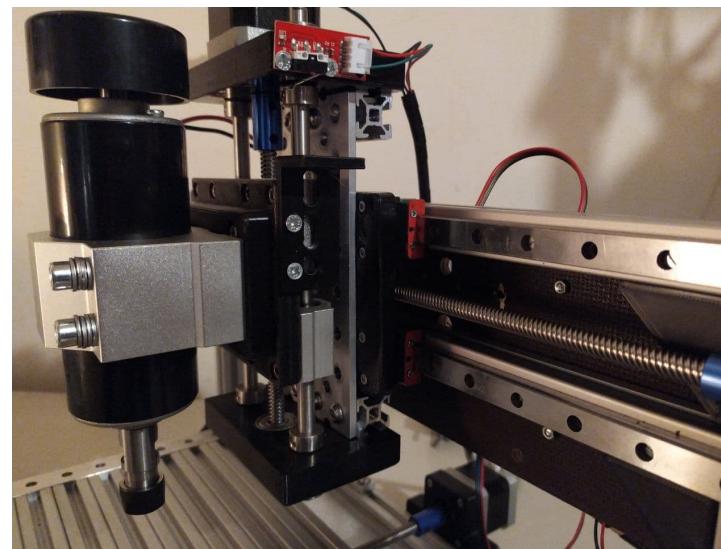
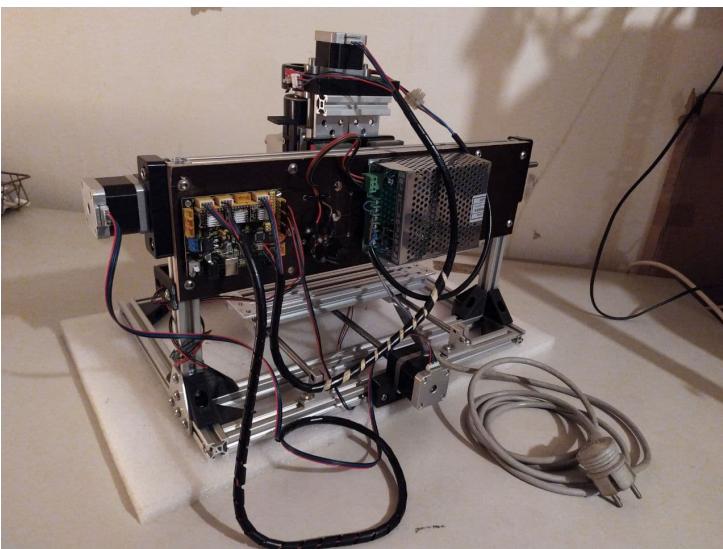
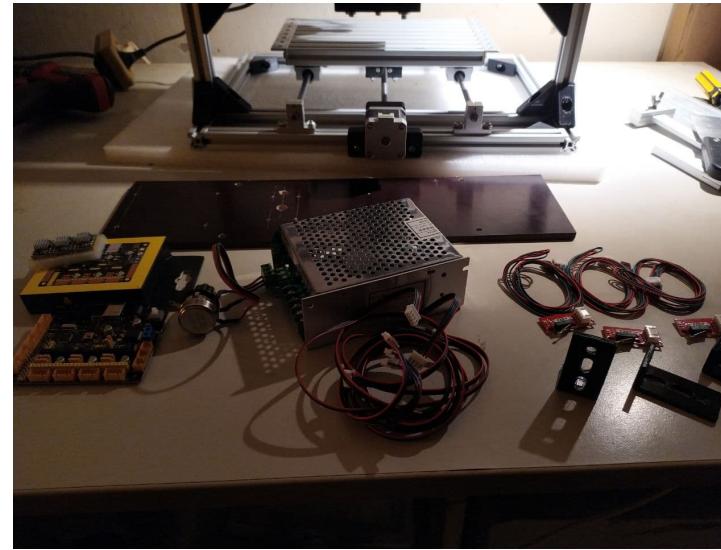
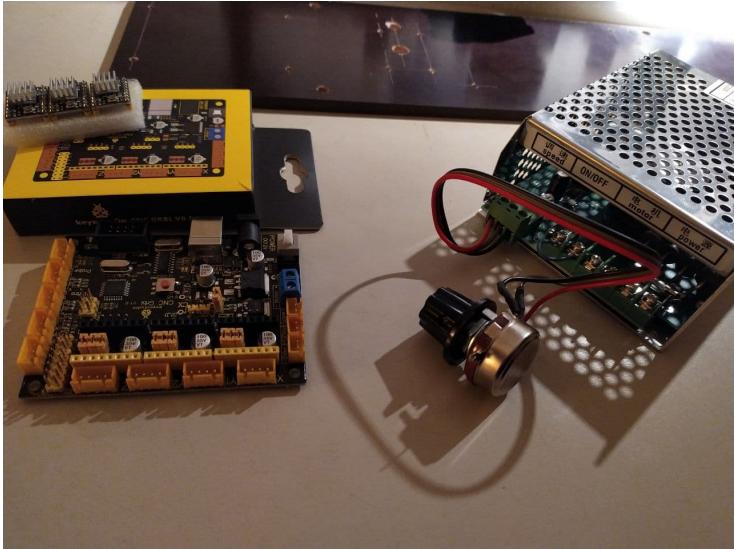


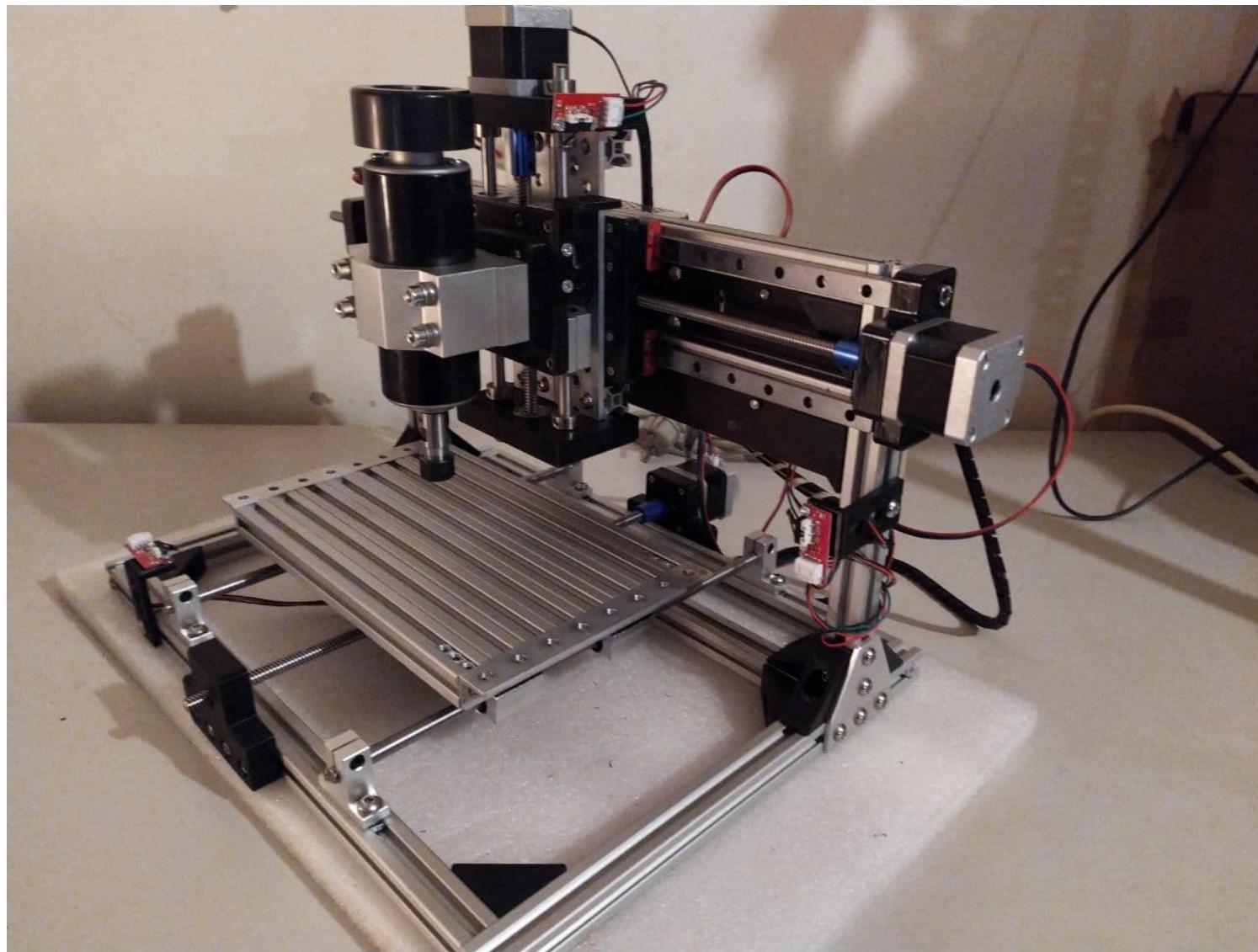
## Steuerung

Name	Bauteil/A.-Nr.	Stück	Funktion
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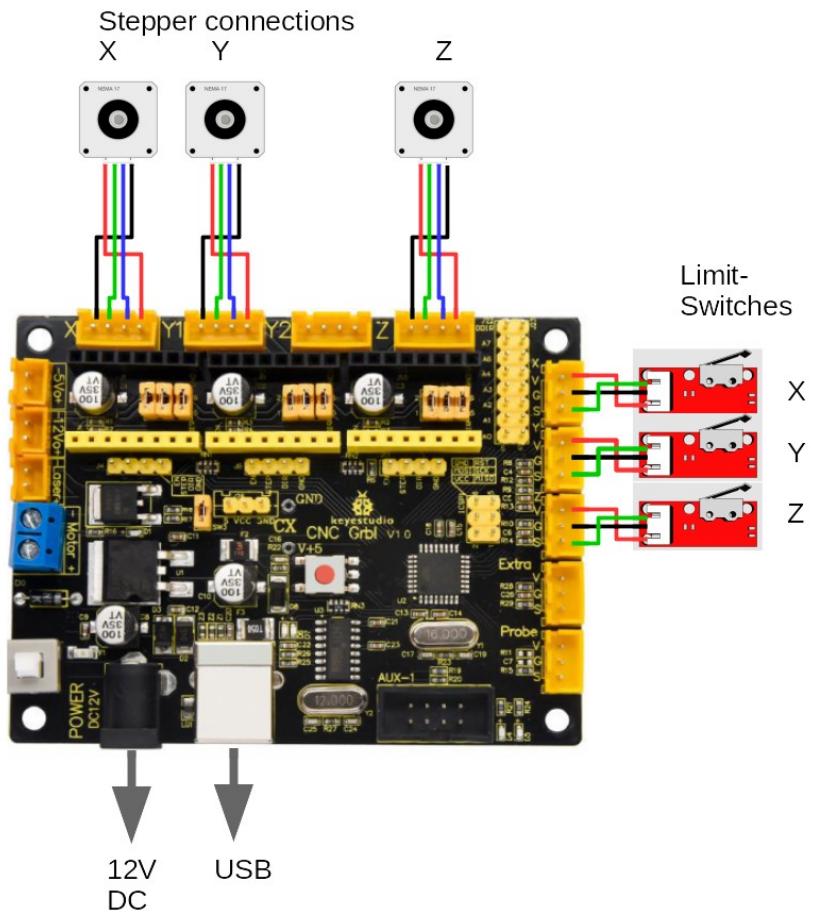
### Elektronik

Endstopmount1b	21031006	3	Halter f. Limitswitches
Endstopswitch1b	19082020	3	Limit Switch
M6x8	17092303	3	8mm, M6 ISO 7380
3.5x16ws	18081701	4	WoodScrew
M3x10cyl	19070615	4	10mm, M3 ISO 4762
M3nut	19081701	8	M3 Mutter
Ctrlmount2g	21031010	1	Elektronik-Platte
M6x12	17092304	4	12mm, M6 ISO 7380
M6nutplate	17092309	8	für TSlot, Slot6, M6
Ks0288cncshield	21031007	1	Arduino kompatible Steuerung
M3nut	19081701	12	M3 Mutter
M3x16cyl	19082010	4	16mm, M3 ISO 4762
Pololu-A4988	19082019	3	Treiber f. Steppermotor
Motor-4of8pol	19082026	3	Kabel f. Steppermotor, 4-pol
Endstop-3pol	19082027	3	Kabel f. Endswitch, 3-pol
Ramps-usb2B	19082023	1	USB 2.0 Typ B Kabel
ps500wspindel	21031008	1	PowerSupply 500w-Spindel
M3x10cyl	19070615	6	10mm, M3 ISO 4762
M3nut	19081701	6	M3 Mutter
revctrl500wspindel	21031009	1	wth118-1a 2w 4k7
cabel220v	21031011	1	220V AC-Kabel mit Stecker
cabel20awg	21031012	1	Kabel 0.75mm <sup>2</sup> , awg20
terminalstrip1.5qmm	21031013	1	Lüsterklemme 1.5 mm <sup>2</sup> , 16A
Ps12V8A	19082028	1	PowerSupply 12V
revctrl-holder	21040801	1	Holder f. revctrl500wspindel
M3x16cyl	19082010	4	16mm, M3 ISO 4762





Wiring diagram for UniProKit Maker's Mill MM1  
with GRBL-CNC-Shield KS0288



Wiring diagram for UniProKit Maker's Mill MM1  
with 500 W Spindle and 230V Powersupply

