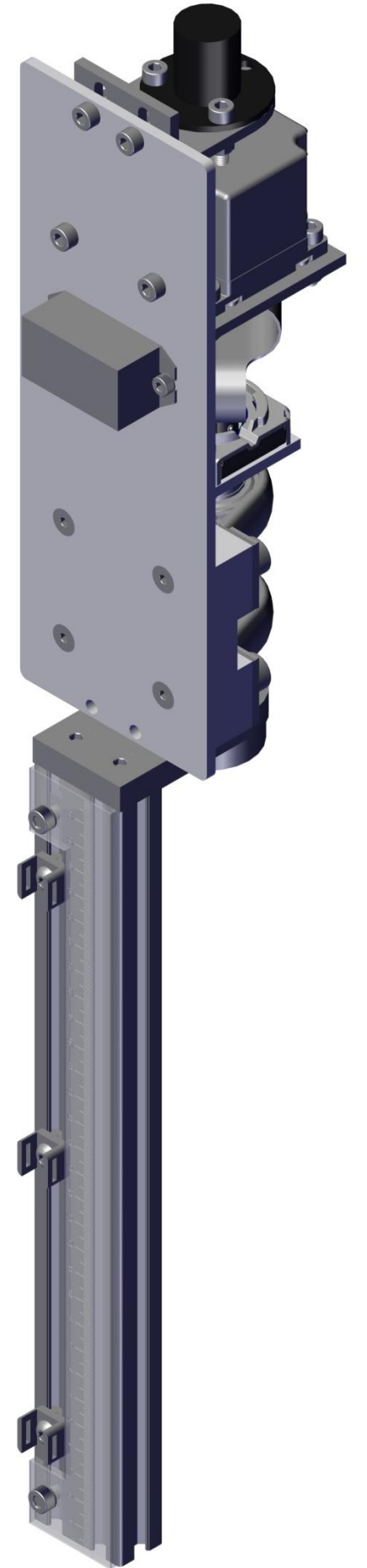
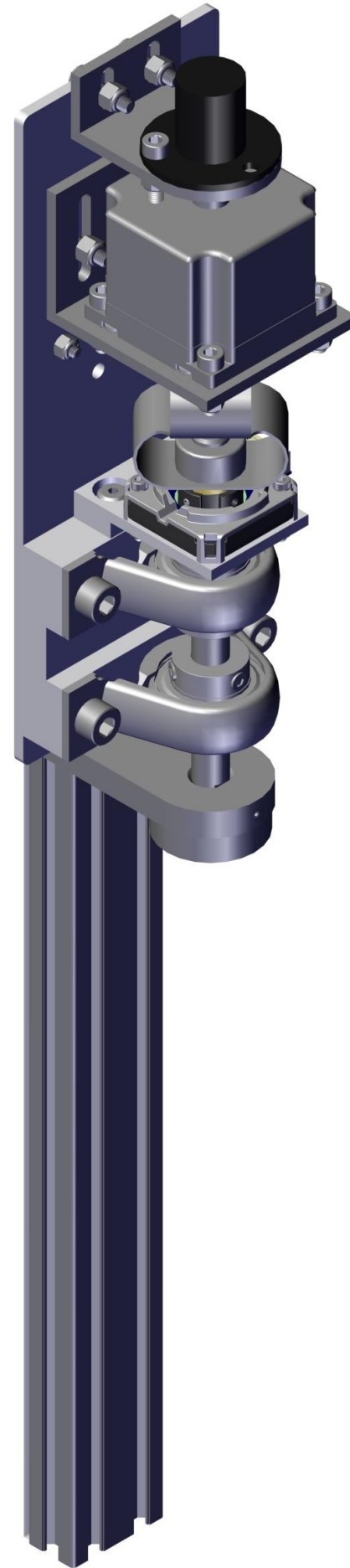


# ROME

ROBOTICS FOR MICROFARMS

**BOM & Assembly Instructions**

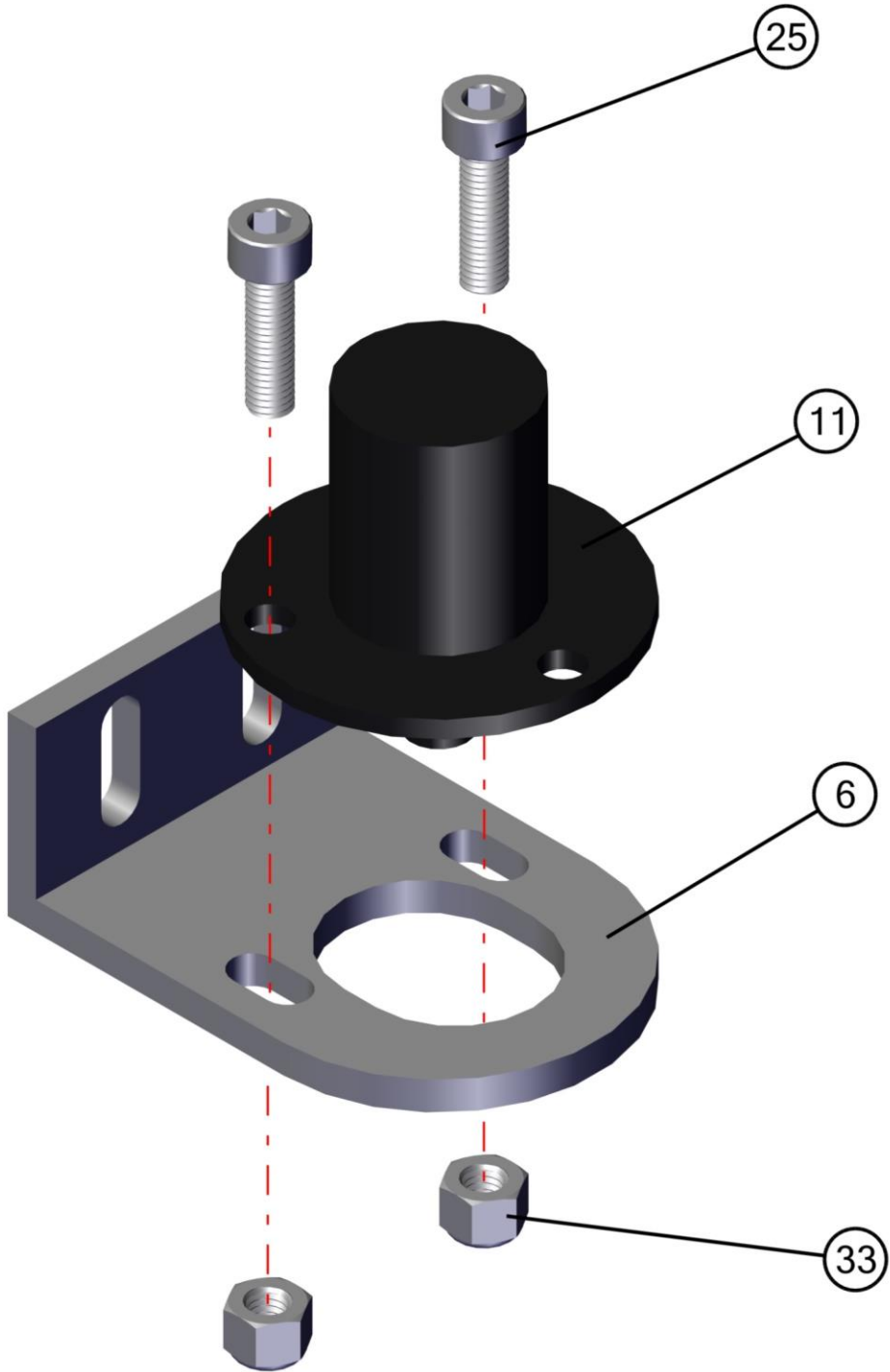
**Arm**



## BOM

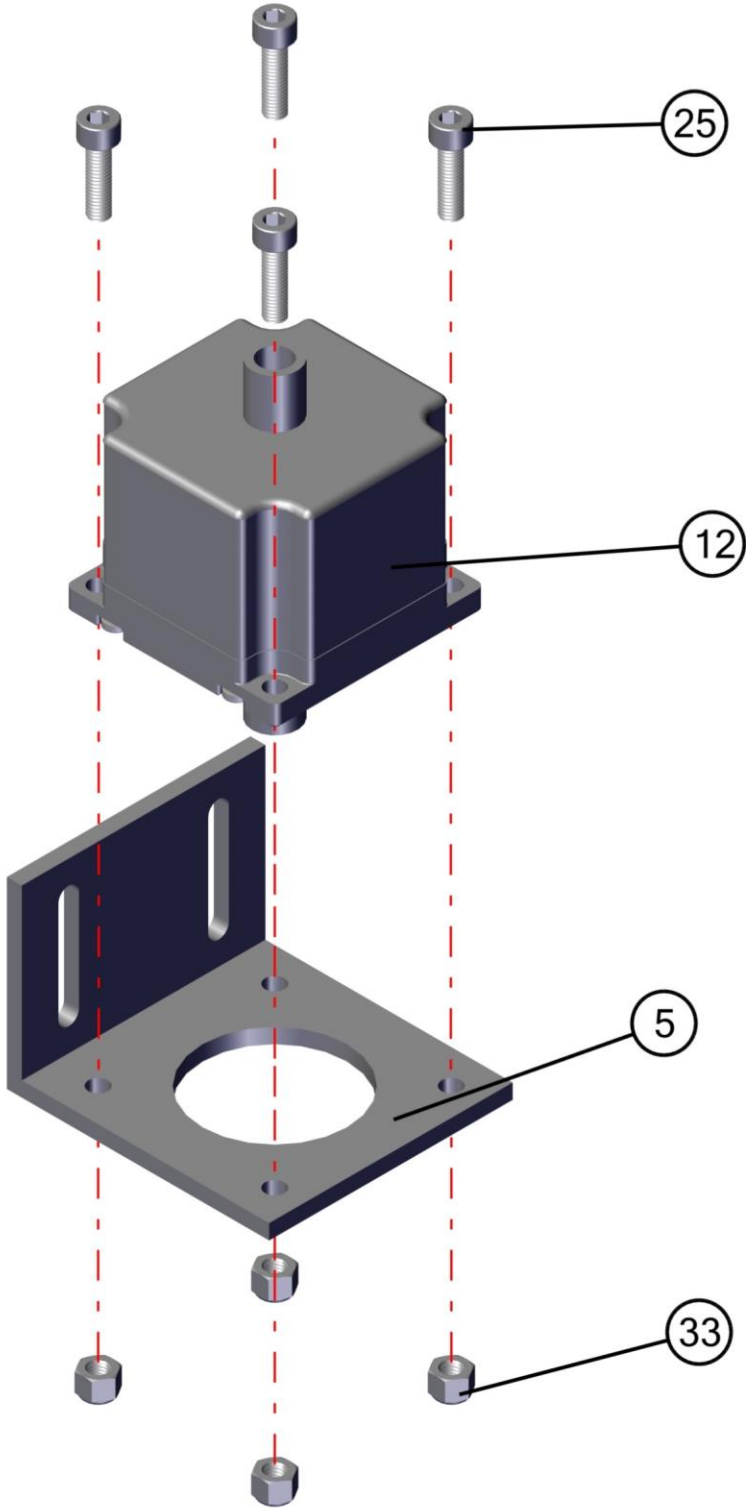
ID	Name	Qty	Off the shelf / Custom	Material	Manufactureur	Serial number
1	PLI004	1	Custom	Aluminium		
2	PLI006	1	Custom	Steel	Ewellix Makers in Motion	LJM12X600ESSC2
3	PLI007-3	1	Custom	Aluminium		
4	PLI009	1	Custom	Aluminium		
5	PLI011	1	Custom	Aluminium		
6	PLI012	1	Custom	Aluminium		
7	PLI016	1	Custom	Aluminium		
8	Cable Zip	3	Custom	PLA		
9	Dozenal_ruler_30cm	1	Custom	PMMA	RS PRO	434-295
10	PROFILE_D_ETAYAGE_20x40x300	1	Off the shelf		Bosch Rexroth	R987501076
11	Slip Ring ROB-13063	1	Off the shelf		SparkFun	ROB-13063
12	Nema 23 - 45mm	1	Off the shelf		Stepperonline	23HS18-2004H
13	Convertisseur 24-5V	1	Off the shelf			
14	Huco 047_20	1	Off the shelf		Huco	047.20.3535
15	CUI_DEVICES_AMT132Q-0048-1200	1	Off the shelf		CUI Devices	AMT132Q-V
16	AMT Cable	1	Off the shelf		CUI Devices	AMT-18C-3-036
17	AMT Viewpoint Programming Cable	1	Off the shelf		CUI Devices	AMT-PGRM-18C
18	SKF_P 12 TF	2	Off the shelf		SKF	P 12 TF
19	MQCL-12-A	1	Off the shelf		Ruland	MQCL-12-A
20	M8x16 Socket Head	4	Off the shelf		RS PRO	529-703
21	M5x10 Shoulder Screw	2	Off the shelf		RS PRO	292-271
22	M3x12 Set Screw	1	Off the shelf		RS PRO	137-736
23	M3x20 Socket Head	2	Off the shelf		RS PRO	293-319
24	M4x12 Socket Head	2	Off the shelf		RS PRO	281-035
25	M5x18 Socket Head	10	Off the shelf		Vis express	8420501818
26	M5x16 Flat Head	4	Off the shelf		RS PRO	232-8423
27	M6x40 Flat Head	2	Off the shelf		RS PRO	917-6238
28	M5x8 Socket Head	2	Off the shelf		RS PRO	660-4633
29	M5x8 Button Head	3	Off the shelf		RS PRO	822-9114
30	Bosch nut	5	Off the shelf		Bosch Rexroth	3842523142
31	M3 Locknut	2	Off the shelf		RS PRO	524-281
32	M4 Locknut	2	Off the shelf		RS PRO	524-304
33	M5 Locknut	10	Off the shelf		RS PRO	122-4371

1



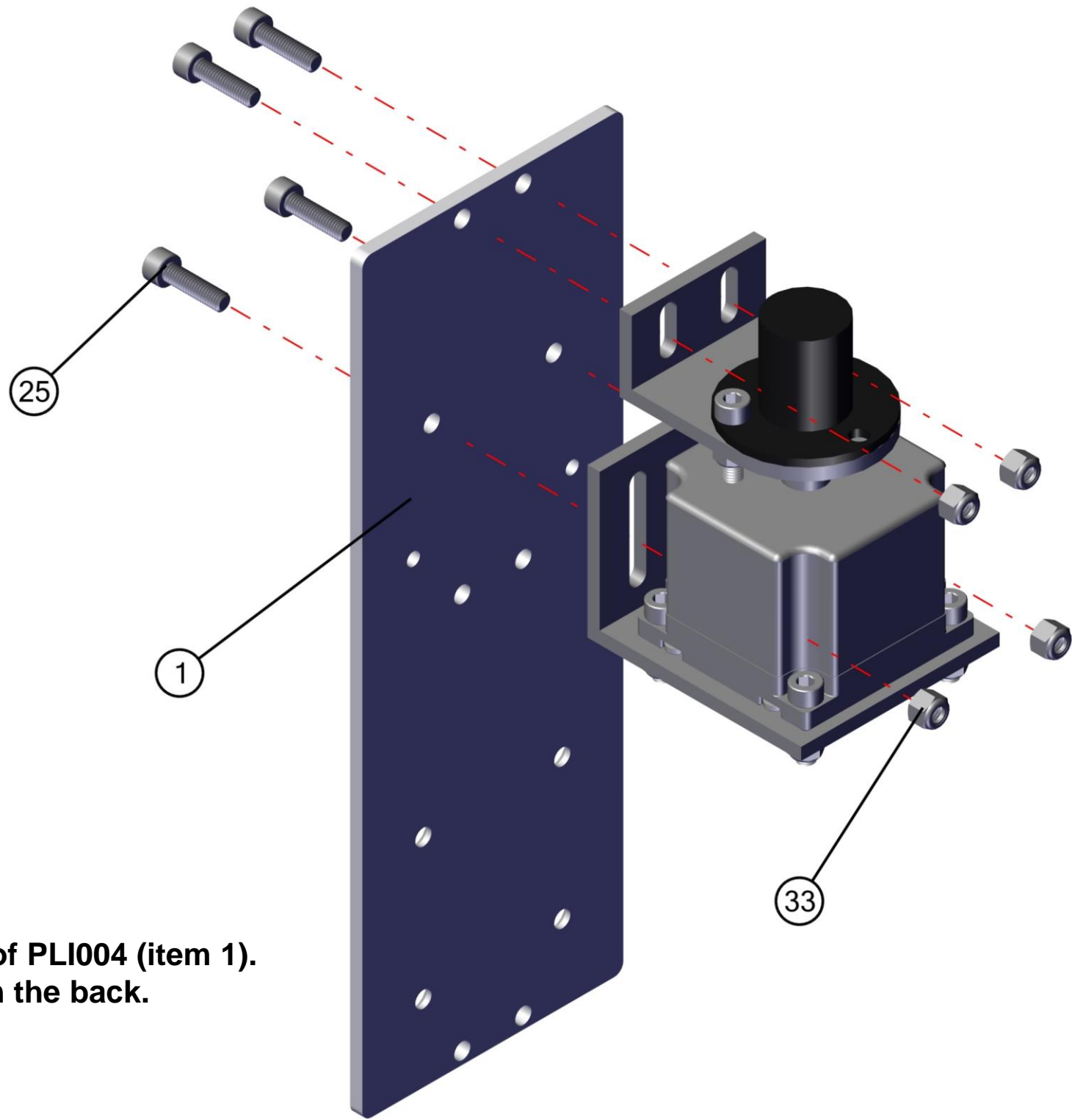
ID	Name	Qty	Off the shelf / Custom	Material	Manufactureur	Serial number
6	PLI012	1	Custom	Aluminium		
11	Slip Ring ROB-13063	1	Off the shelf		SparkFun	ROB-13063
25	M5x18 Socket Head	2	Off the shelf		Vis express	8420501818
33	M5 Locknut	2	Off the shelf		RS PRO	122-4371

2



ID	Name	Qty	Off the shelf / Custom	Material	Manufactureur	Serial number
5	PLI011	1	Custom	Aluminium		
12	Nema 23 - 45mm	1	Off the shelf		Stepperonline	23HS18-2004H
25	M5x18 Socket Head	4	Off the shelf		Vis express	8420501818
33	M5 Locknut	4	Off the shelf		RS PRO	122-4371

3

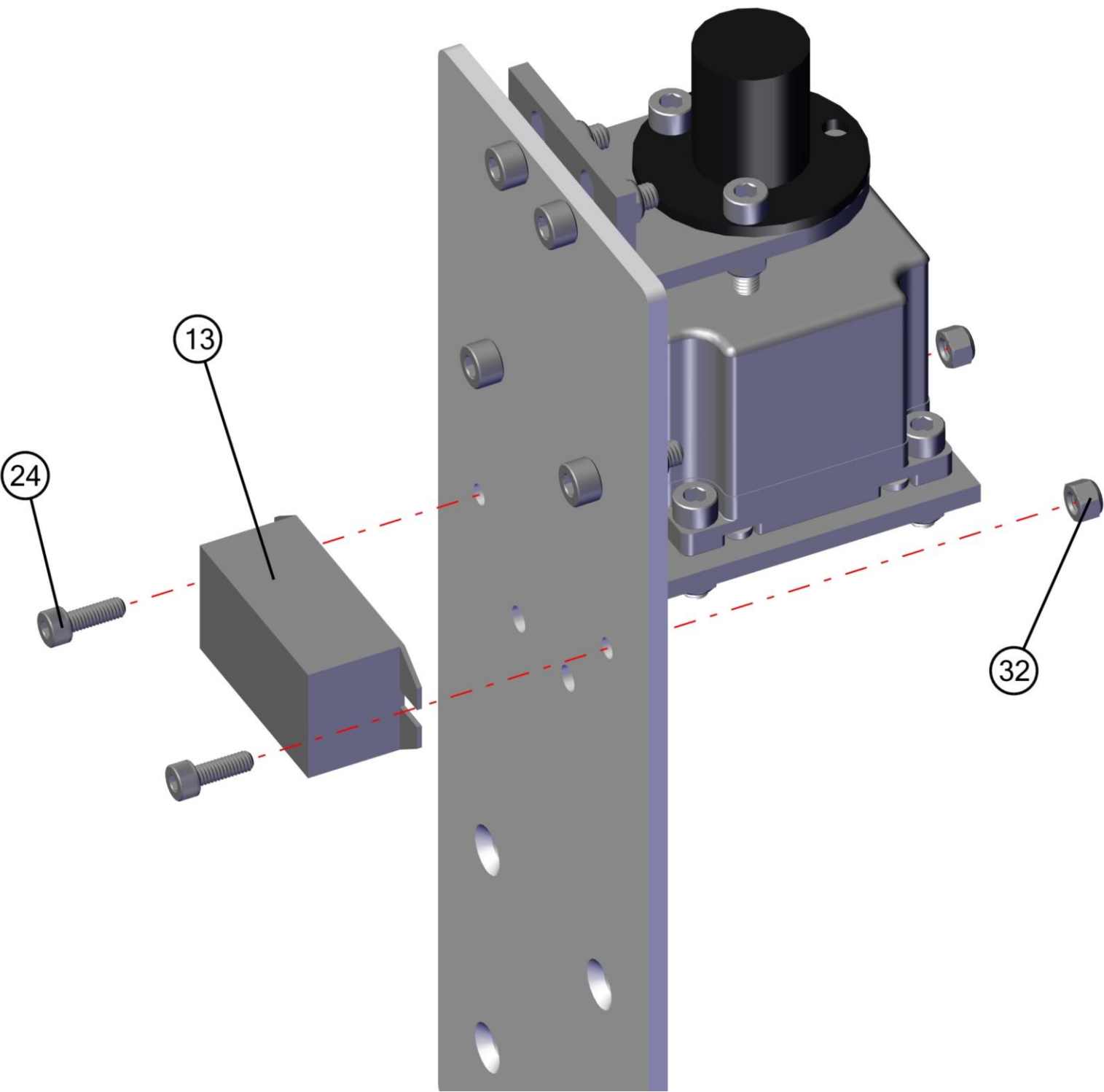


Pay attention to the orientation of PLI004 (item 1).  
Countersunk holes should be on the back.

ID	Name	Qty	Off the shelf / Custom	Material	Manufactureur	Serial number
1	PLI004	1	Custom	Aluminium		
25	M5x18 Socket Head	4	Off the shelf		Vis express	8420501818
33	M5 Locknut	4	Off the shelf		RS PRO	122-4371

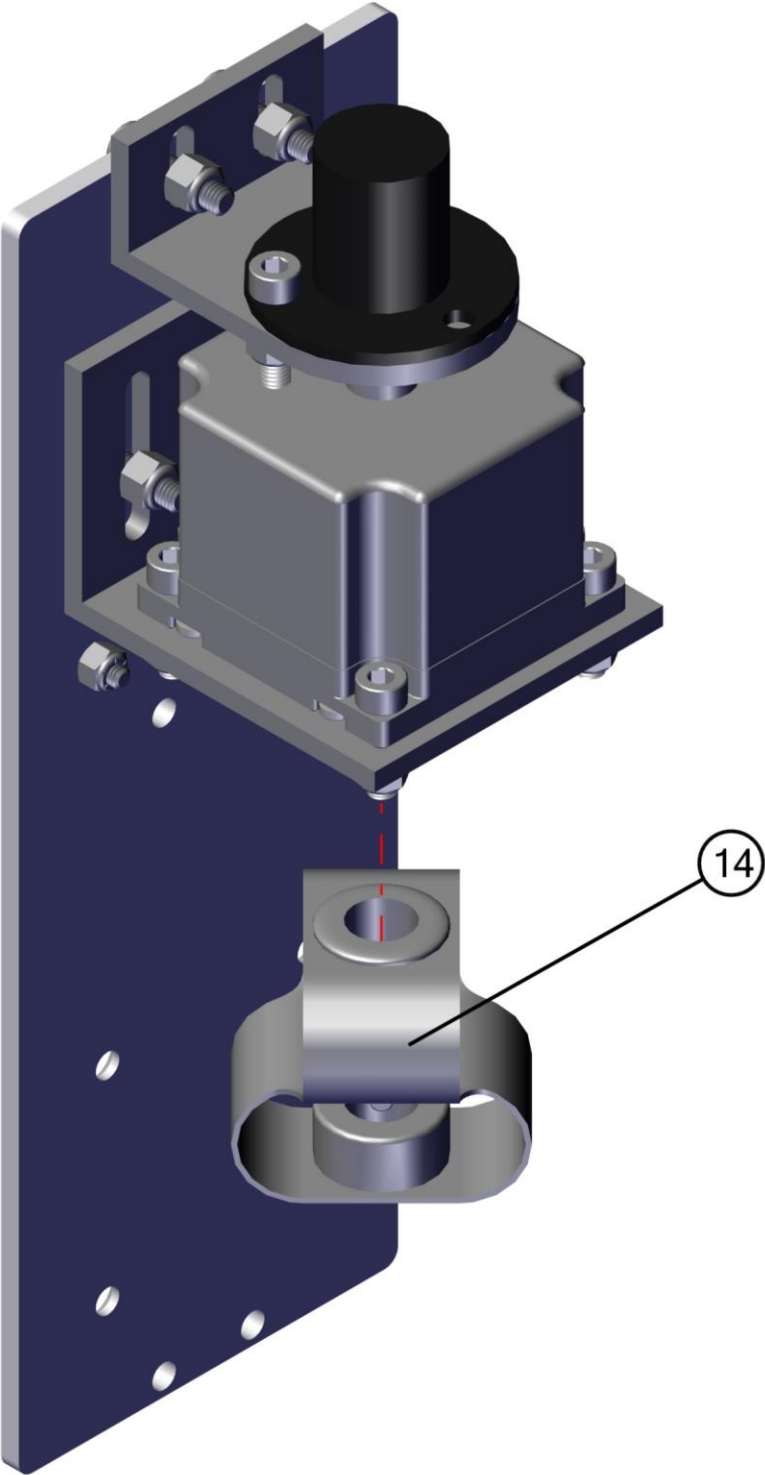


4



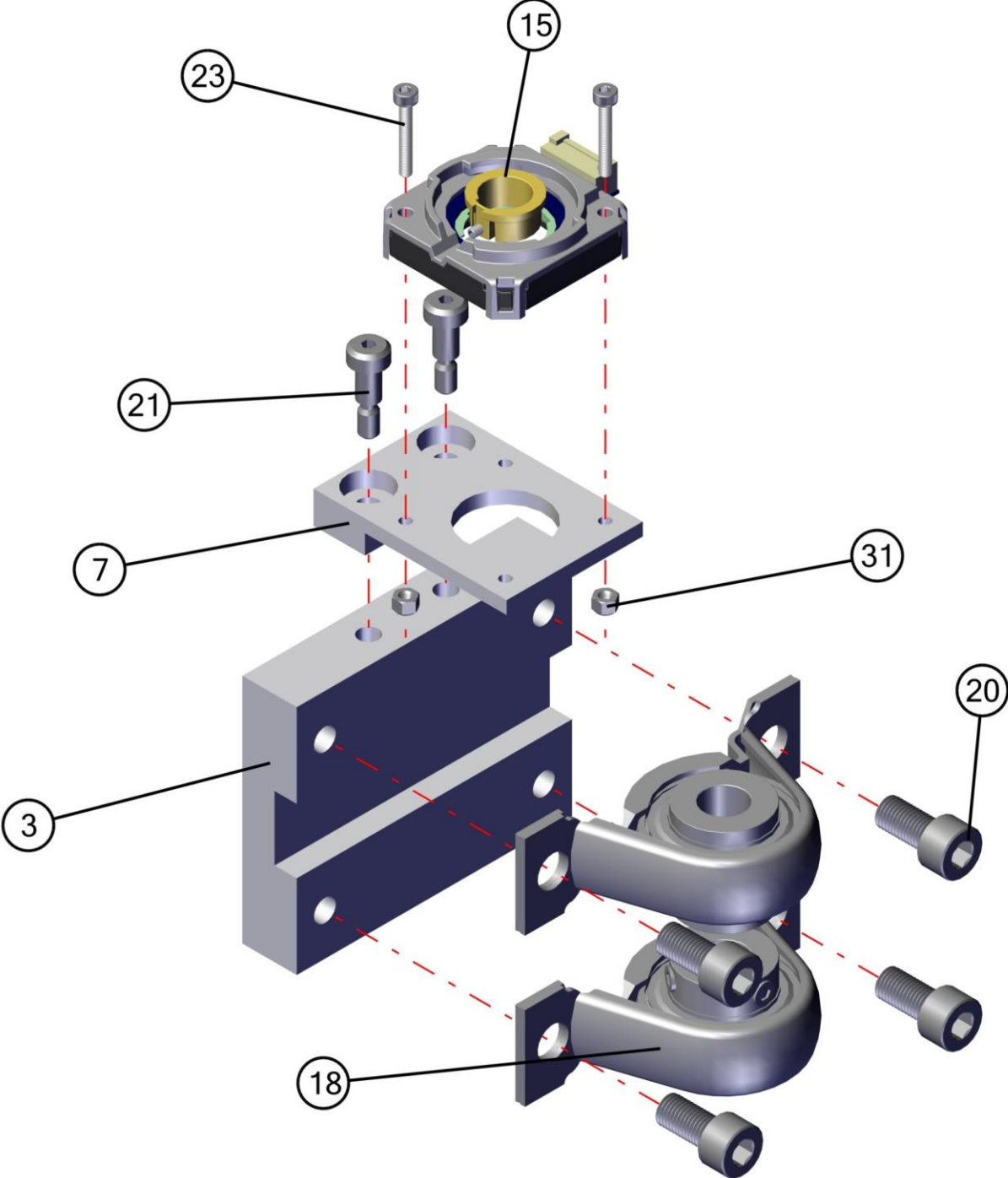
ID	Name	Qty	Off the shelf / Custom	Material	Manufactureur	Serial number
13	Convertisseur 24-5V	1	Off the shelf			
24	M4x12 Socket Head	2	Off the shelf		RS PRO	281-035
32	M4 Locknut	2	Off the shelf		RS PRO	524-304

5



ID	Name	Qty	Off the shelf / Custom	Material	Manufactureur	Serial number
14	Huco 047_20	1	Off the shelf		Huco	047.20.3535

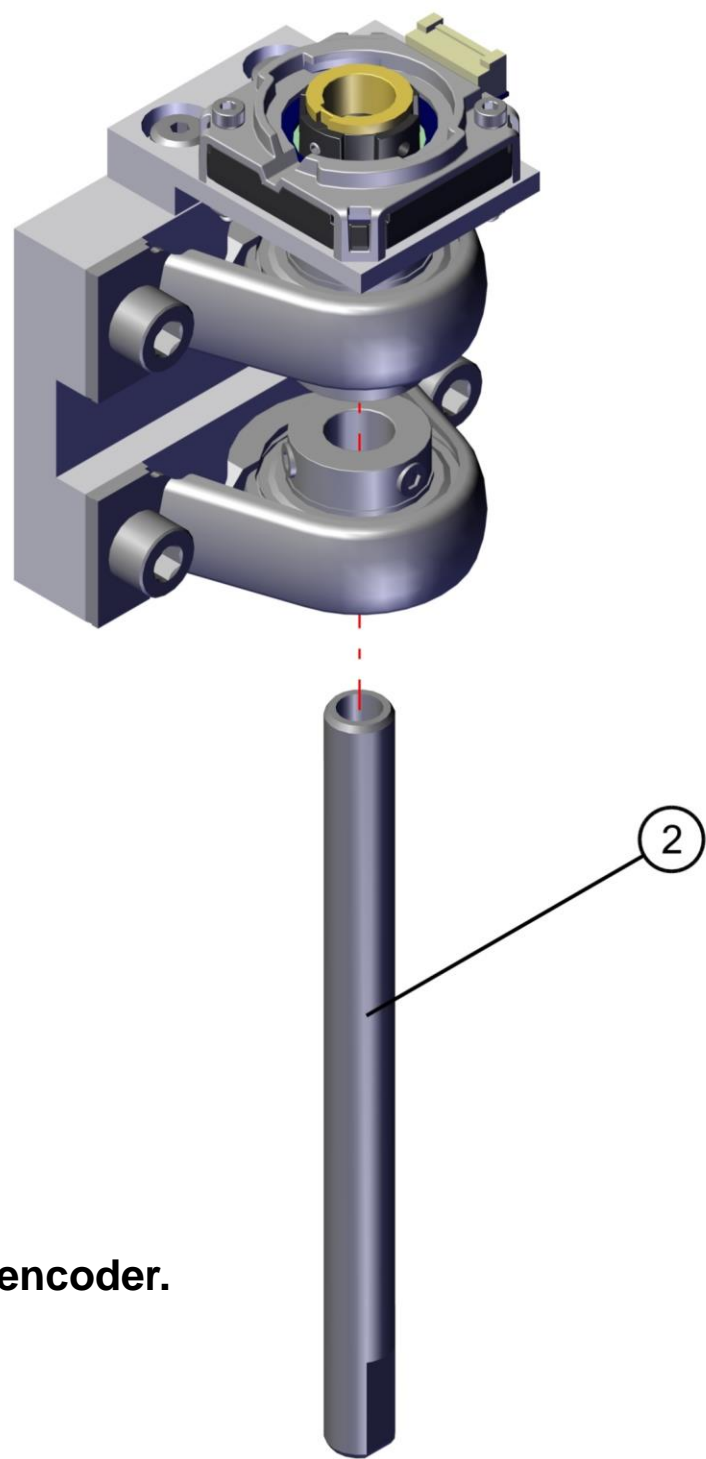
6



ID	Name	Qty	Off the shelf / Custom	Material	Manufactureur	Serial number
3	PLI007-3	1	Custom	Aluminium		
7	PLI016	1	Custom	Aluminium		
15	CUI_DEVICES_AMT132Q-0048-1200	1	Off the shelf		CUI Devices	AMT132Q-V
18	SKF_P 12 TF	2	Off the shelf		SKF	P 12 TF
20	M8x16 Socket Head	4	Off the shelf		RS PRO	529-703
21	M5x10 Shoulder Screw	2	Off the shelf		RS PRO	292-271
23	M3x20 Socket Head	2	Off the shelf		RS PRO	293-319
31	M3 Locknut	2	Off the shelf		RS PRO	524-281

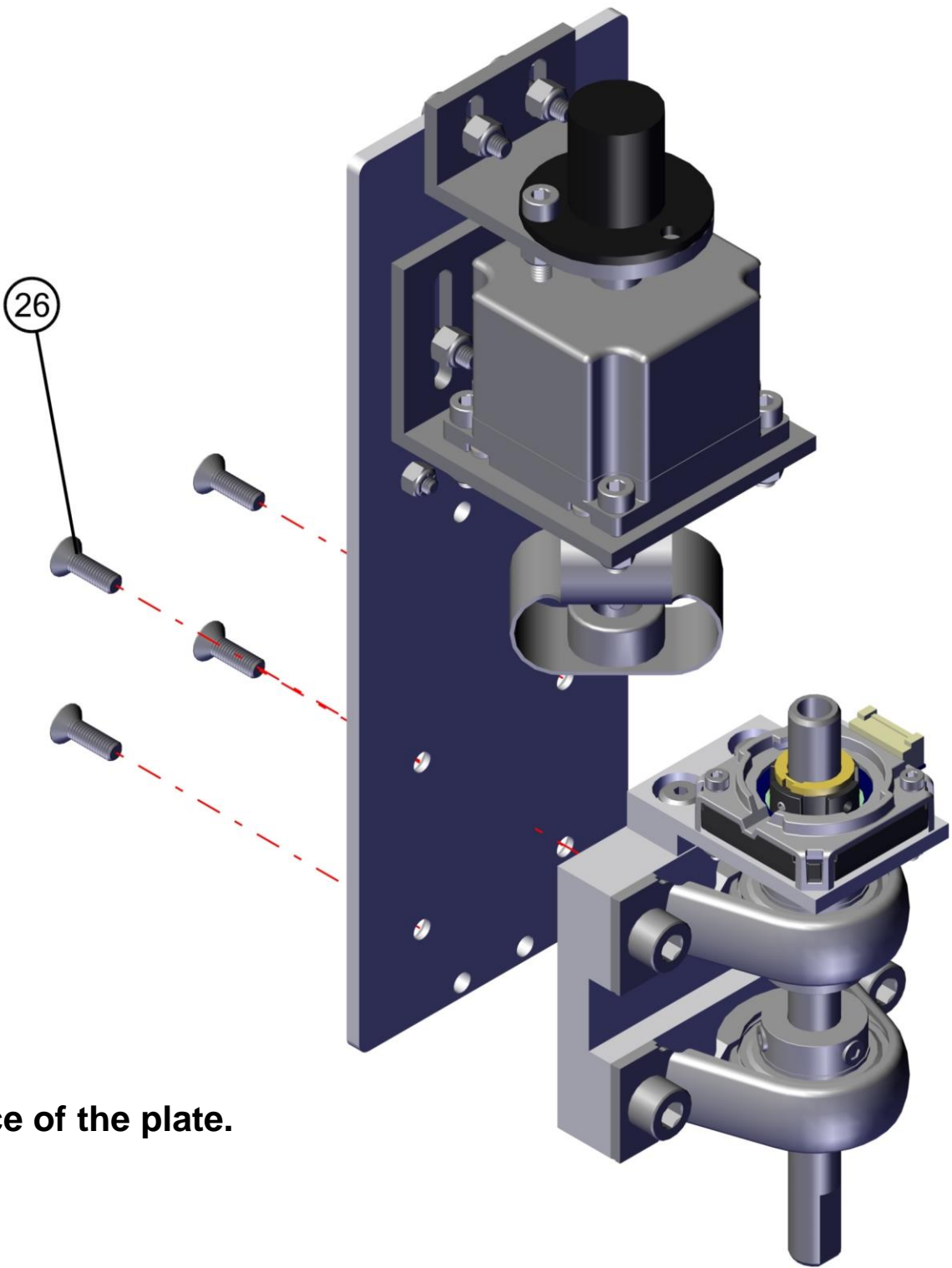


7



Carefully slide PLI006 (item 2) in the bearings and encoder.  
Use the instruction from CUI Devices.

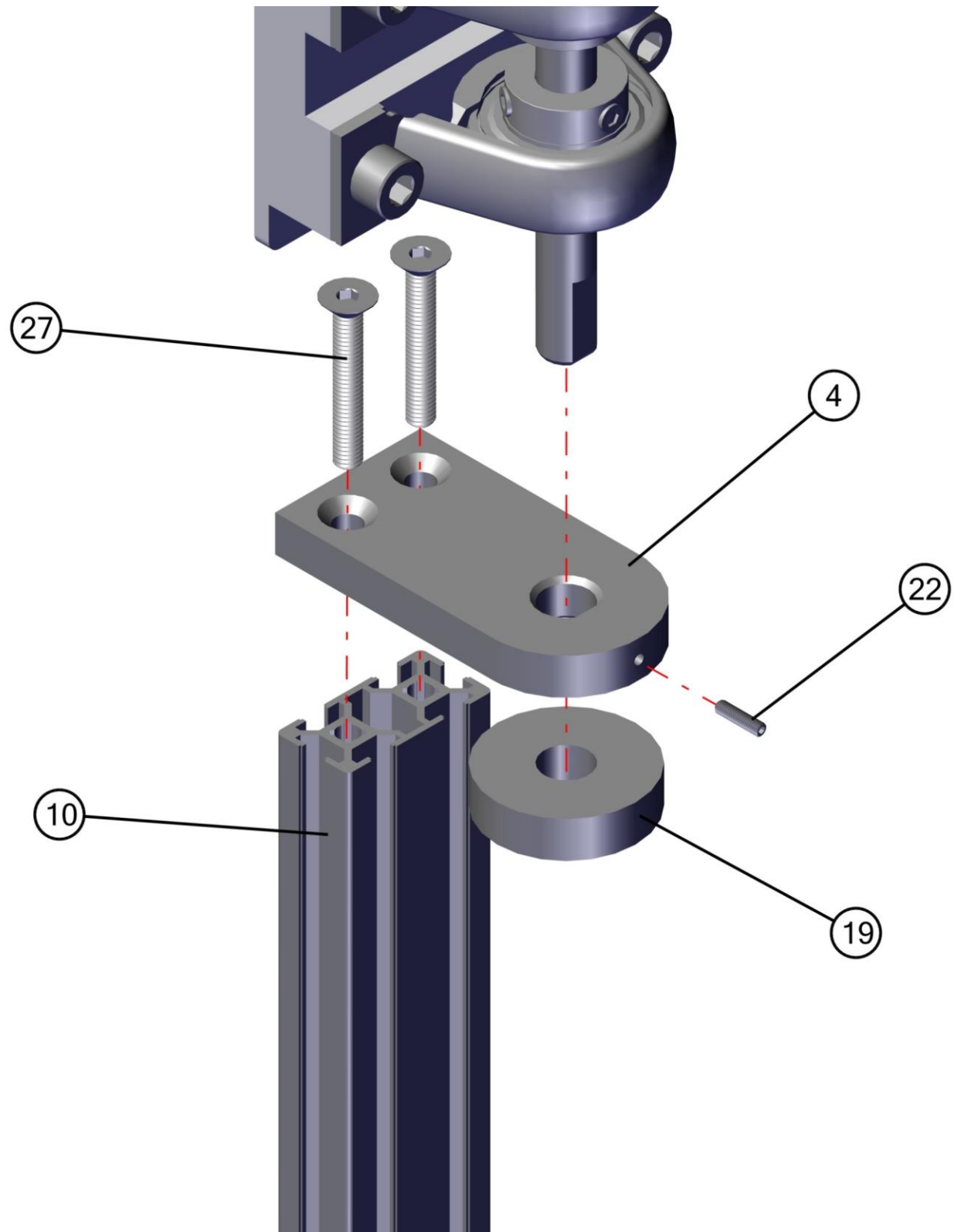
ID	Name	Qty	Off the shelf / Custom	Material	Manufactureur	Serial number
2	PLI006	1	Custom	Steel	Ewellix Makers in Motion	LJM12X600ESSC2
16	AMT Cable	1	Off the shelf		CUI Devices	AMT-18C-3-036
17	AMT Viewpoint Programming Cable	1	Off the shelf		CUI Devices	AMT-PGRM-18C



Screw heads must be flush with the surface of the plate.

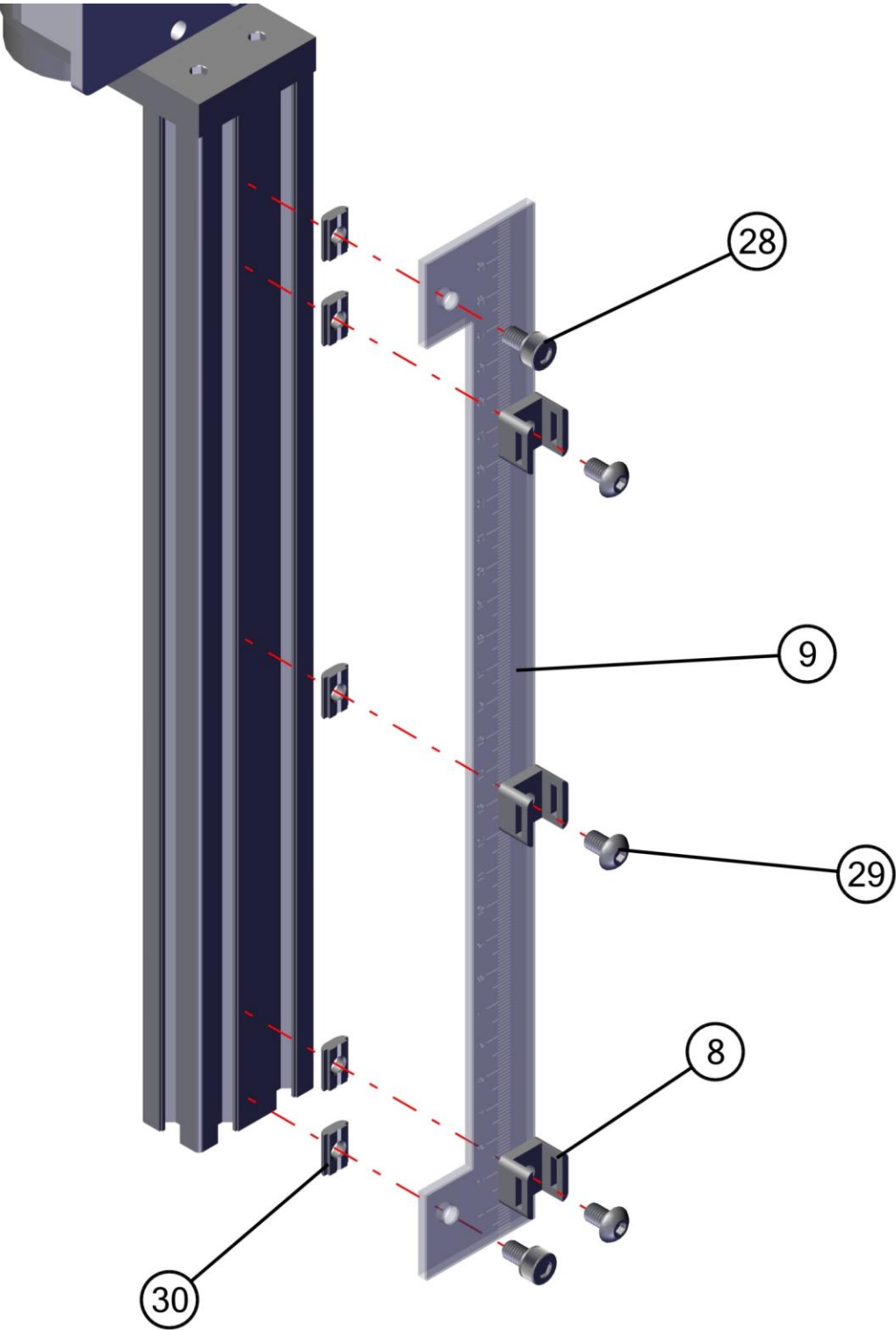
ID	Name	Qty	Off the shelf / Custom	Material	Manufactureur	Serial number
26	M5x16 Flat Head	4	Off the shelf		RS PRO	232-8423

9



ID	Name	Qty	Off the shelf / Custom	Material	Manufactureur	Serial number
4	PLI009	1	Custom	Aluminium		
10	PROFILE_D_ETAYAGE_20x40x300	1	Off the shelf		Bosch Rexroth	R987501076
19	MQCL-12-A	1	Off the shelf		Ruland	MQCL-12-A
22	M3x12 Set Screw	1	Off the shelf		RS PRO	137-736
27	M6x40 Flat Head	2	Off the shelf		RS PRO	917-6238

10



ID	Name	Qty	Off the shelf / Custom	Material	Manufactureur	Serial number
8	Cable Zip	3	Custom	PLA		
9	Dozenal_ruler_30cm	1	Custom	PMMA	RS PRO	434-295
28	M5x8 Socket Head	2	Off the shelf		RS PRO	660-4633
29	M5x8 Button Head	3	Off the shelf		RS PRO	822-9114
30	Bosch nut	5	Off the shelf		Bosch Rexroth	3842523142