

## Lisa 1 – Materjalide nimekiri ühe mooduli kohta

Nr	Komponendi kirjeldus	Failinimi	Kogus	Tellimisviit	Kas prinditav/ tellitav/ freesitav
1	Pololu 19:1 mootor 37Dx68L mm 12V koos 64 CPR kodeerijaga	BDSG-37-40-R150_motor [38]	2	<a href="https://www.pololu.com/product/4751/spe">https://www.pololu.com/product/4751/spe</a> <a href="https://www.pololu.com/product/4751/spe">cs</a>	tellitav
2	Rullisuratas 70x25mm	scooter_wheel_70mm	1	<a href="https://www.pololu.com/product/3272">https://www.pololu.com/product/3272</a> kasutatud prototüübis: <a href="https://kaup24.ee/et/sport-puhkus-turism/jalgrattad-rullisud-rulad/rullisud/rullisurattad-nils-extreme-70x24-mm-82a-mustad?id=5890108&amp;mid=7538983&amp;utm_campaign=17169_EE&amp;utm_content=cart_block&amp;utm_medium=email&amp;utm_source=transactional&amp;utm_subscriber=119580977">https://kaup24.ee/et/sport-puhkus-turism/jalgrattad-rullisud-rulad/rullisud/rullisurattad-nils-extreme-70x24-mm-82a-mustad?id=5890108&amp;mid=7538983&amp;utm_campaign=17169_EE&amp;utm_content=cart_block&amp;utm_medium=email&amp;utm_source=transactional&amp;utm_subscriber=119580977</a>	tellitav

3	Ratta kinnitus võllile (võlli diameeter 6mm)	wheel_mount_h ub2	1	<a href="https://www.pololu.com/product/2674">https://www.pololu.com/product/2674</a> (komplekt)	tellitav/ prinditav
4	Ratta kinnituse vastus	wheel_mount_h ub1	1		tellitav/ prinditav
5	ratta võll l=59.1mm tihke istuga	shaft_round_wc ut_6mm_for_whe eel	1	<a href="https://www.alas-kuul.ee/lineaarjuhik-karastatud-ja-lihvitud-59-hrc-iso-h6-ots-markeeritud-rohelise-varviga-ljm-6-mad-1000-mm">https://www.alas-kuul.ee/lineaarjuhik-karastatud-ja-lihvitud-59-hrc-iso-h6-ots-markeeritud-rohelise-varviga-ljm-6-mad-1000-mm</a>	tellitav
6	vedava mootori ülekande võll l=16.7mm tihke istuga	shaft_round_wc ut_6mm_for_mo tor_transmission 1	1	<a href="https://www.alas-kuul.ee/lineaarjuhik-karastatud-ja-lihvitud-59-hrc-iso-h6-ots-markeeritud-rohelise-varviga-ljm-6-mad-1000-mm">https://www.alas-kuul.ee/lineaarjuhik-karastatud-ja-lihvitud-59-hrc-iso-h6-ots-markeeritud-rohelise-varviga-ljm-6-mad-1000-mm</a>	tellitav
7	keskmiste hammasrataste ülekande võll l=45.1mm	shaft_round_wc ut_6mm_for_mi dgears	1	<a href="https://www.alas-kuul.ee/lineaarjuhik-karastatud-ja-lihvitud-59-hrc-iso-h6-ots-markeeritud-rohelise-varviga-ljm-6-mad-1000-mm">https://www.alas-kuul.ee/lineaarjuhik-karastatud-ja-lihvitud-59-hrc-iso-h6-ots-markeeritud-rohelise-varviga-ljm-6-mad-1000-mm</a>	tellitav
8	võll ratta kõrvale koonushammasrat aste ülekandele l=49.5mm tihke istuga	shaft_round_wc ut_6mm_for_be vel_wheel_trans mission	1	<a href="https://www.alas-kuul.ee/lineaarjuhik-karastatud-ja-lihvitud-59-hrc-iso-h6-ots-markeeritud-">https://www.alas-kuul.ee/lineaarjuhik-karastatud-ja-lihvitud-59-hrc-iso-h6-ots-markeeritud-</a>	tellitav

				<a href="#">roheline-varviga-ljm-6-mad-1000-mm</a>	
9	Koonushammasra tas ratta ülekandele väline 1.5M 16GT	bevel_gear_1.5 M_16GT_35570 700	1	<a href="https://www.maedler.de/Article/35570700">https://www.maedler.de/Article/35570700</a>	tellitav/ prinditav
10	Koonushammasra tas ratta ülekandele sisemine 1.5M 16GT	bevel_gear_1.5 M_16GT_35570 700_inner	1	<a href="https://www.maedler.de/Article/35570700">https://www.maedler.de/Article/35570700</a>	tellitav/ prinditav
11	Silinderhammasra tas 72T 1M alumine	spur_gear_lower _1M_72T_2830 7201	1	<a href="https://www.maedler.de/Article/28307201">https://www.maedler.de/Article/28307201</a>	tellitav/ prinditav
12	Silinderhammasra tas 72 1M ülemine	spur_gear_upper _1M_72T_2830 7201	1	<a href="https://www.maedler.de/Article/28307201">https://www.maedler.de/Article/28307201</a>	tellitav/ prinditav
13	72T-de vaheline hammasratas 26T 1M	spur_gear_long_ hub_26T_28302 601	1	<a href="https://www.maedler.de/Article/28302601">https://www.maedler.de/Article/28302601</a>	tellitav/ prinditav
14	72T-de vaheline hammasratas 26 T 1M, topelt keskmikuga, koonushammasrat ta völli	spur_gear_26T_ mid_double_hub _28302601	1	<a href="https://www.maedler.de/Article/28302601">https://www.maedler.de/Article/28302601</a>	tellitav/ prinditav
15	Koonushammasra tas 1M 16GT pöörava mootori (1.) nurkülekanne	small_bevel_gear_1M_16GT_35550701	1	<a href="https://www.maedler.de/Article/35550701">https://www.maedler.de/Article/35550701</a>	tellitav/ prinditav

16	Koonushammasras 1M 16GT pöörava mootori nurkülekanne, lühem	small_bevel_gear_CUT_1M_16GT_35550701	1	<a href="https://www.maedler.de/Article/35550701">https://www.maedler.de/Article/35550701</a>	tellitav/ prinditav
17	26T 1M hammasratta väline ülekanne 1. mootori (pöörav) jaoks	spur_gear_CUT_26T_28302601	1	<a href="https://www.maedler.de/Article/28302601">https://www.maedler.de/Article/28302601</a>	tellitav/ prinditav
18	Komponendi 16 ja 17 ühendatud versioon (alternatiivne printimiseks)	small_bevel_gear1M_merged_with_spur_gear26T_28302601_35550701	1	-	prinditav
19	Silinderhammasras 24T 1M vedava mootori ülekanne	spur_gear_second_motor_transmission_1M_24T_28302401	1	<a href="https://www.maedler.de/Article/28302401">https://www.maedler.de/Article/28302401</a>	tellitav/ prinditav
20	Rullisurattale 70mm kuullaager sisemine D=6mm, väline D=19mm, W=6mm	ball_bearing_SKF626	2	<a href="https://tellimiskeskus.moduator.ee/index.php?pg=1&amp;tg=155&amp;kg=30&amp;aid=52789">https://tellimiskeskus.moduator.ee/index.php?pg=1&amp;tg=155&amp;kg=30&amp;aid=52789</a>	tellitav
21	Nõellaager sisemine D=6mm, väline 10mm, W=8mm	needle_roller_bearing 6-10-8	3	<a href="https://tellimiskeskus.moduator.ee/index.php?pg=1&amp;tg=155&amp;kg=40&amp;aid=67110">https://tellimiskeskus.moduator.ee/index.php?pg=1&amp;tg=155&amp;kg=40&amp;aid=67110</a>	tellitav
22	Üherealine laager sisemine D=6mm,	ball_bearing_68_iso_6-10-3	1	<a href="https://tellimiskeskus.moduator.ee/index.p">https://tellimiskeskus.moduator.ee/index.p</a>	tellitav

	väline D=10mm, W=3mm			<a href="http://www.tme.eu/en/details/tff-m3x40-dr113/metall-puksid/dremec/113x40/">hp?pg=1&amp;tg=155&amp;kg=30&amp;aid=79536</a>	
23	Rattahoidja detaili plaat	body_wheel_holder_plate	1	-	prinditav
24	Rattahoidja detaili kõrv väiksem	body_wheel_holder_ear_smaller	1	-	prinditav
25	Rattahoidja detaili kõrv suurem	body_wheel_holder_ear_bigger	1	-	prinditav
26	Kere alumine plaat	bottom_base_plate	1	-	freeditav
27	Kere ülemine plaat	upper_base_plate	1	-	freeditav
28	Vahepuks ema- ema kuuskant M3 sise kinnitus pikkus 40mm	support1_between_plates [38]	4	<a href="https://www.tme.eu/en/details/tff-m3x40-dr113/metall-puksid/dremec/113x40/">https://www.tme.eu/en/details/tff-m3x40-dr113/metall-puksid/dremec/113x40/</a>	tellitav
29	Vahepuks ema- ema kuuskant M3 sise kinnitus pikkus 18mm	support2_upper_plate [38]	3	<a href="https://www.tme.eu/en/details/tff-m3x18-dr113/metall-puksid/dremec/113x18/">https://www.tme.eu/en/details/tff-m3x18-dr113/metall-puksid/dremec/113x18/</a>	tellitav
30	M3 koonuspeaga kruvi 10mm	Bolt_m3_10mm [38]	20	<a href="https://ee.farnell.com/tr-fastenings/m3-10-m4a2mccsk-t10sf/screw-countersunk-hex-socket-m3/dp/2846508">https://ee.farnell.com/tr-fastenings/m3-10-m4a2mccsk-t10sf/screw-countersunk-hex-socket-m3/dp/2846508</a>	tellitav
31	M3 koonuspeaga kruvi 12mm	Bolt_m3_12mm [25]	2	<a href="https://ee.farnell.com/tr-fastenings/m3-12-">https://ee.farnell.com/tr-fastenings/m3-12-</a>	tellitav

				<a href="#">m4a2mc-s50-csk-t10/screw-countersunk-hex-socket-m3/dp/2846515</a>	
32	M3 koonuspeaga kruvi 16mm	Bolt_m3_16mm 25]	4	<a href="https://uk.farnell.com/multicomp-pro/mp006522/screw-flat-csk-head-pozidriv-m3/dp/3666715?st=m3%20countersink%2016">https://uk.farnell.com/multicomp-pro/mp006522/screw-flat-csk-head-pozidriv-m3/dp/3666715?st=m3%20countersink%2016</a>	tellitav
33	M3 mutter kaheksakant	M3_stopper_nut 25]	9	<a href="https://ee.farnell.com/tr-fastenings/m3-n5st-z100/nut-locking-steel-bzp-m3-pk100/dp/1420431?st=m3%20stopper%20nut">https://ee.farnell.com/tr-fastenings/m3-n5st-z100/nut-locking-steel-bzp-m3-pk100/dp/1420431?st=m3%20stopper%20nut</a>	tellitav
34	M3 koonuspeaga kruvi 25mm	Bolt_m3_25mm 25]	3	<a href="https://ee.farnell.com/tr-fastenings/m325krstmcz100/pozi-csk-head-machine-screw-steel/dp/2770707?st=m3%20countersink%2025">https://ee.farnell.com/tr-fastenings/m325krstmcz100/pozi-csk-head-machine-screw-steel/dp/2770707?st=m3%20countersink%2025</a>	tellitav

35	isekeermestavad kruvid ratta kinnitamiseks M3 6mm	M3x6.0_set_screw[39]	9	<a href="https://ee.farnell.com/tr-fastenings/m3-6-hs45pc-s100/set-screw-socket-pcp-m3x6-pk100/dp/1419732?st=m3%20set%20screw%206">https://ee.farnell.com/tr-fastenings/m3-6-hs45pc-s100/set-screw-socket-pcp-m3x6-pk100/dp/1419732?st=m3%20set%20screw%206</a>	tellitav
36	Sisendid (ing. k inserts) M3 6mm	M3_insert_Standard [40]	4	<a href="https://www.prusa3d.com/product/threaded-inserts-m3-standard-100-pcs/">https://www.prusa3d.com/product/threaded-inserts-m3-standard-100-pcs/</a>	tellitav
37	isekeermestavad kruvid kahe puksi vahele 10mm M3	M3x10.0_set_screw[39]	2	<a href="https://ee.farnell.com/tr-fastenings/m2-10-hs45pc-s25/set-screw-socket-pcp-m2x10-pk25/dp/1419725">https://ee.farnell.com/tr-fastenings/m2-10-hs45pc-s25/set-screw-socket-pcp-m2x10-pk25/dp/1419725</a>	tellitav

Kõik hammasrattad on tellitavad, kuid siseaugu diameeter ning keskmiku mõõdud on disainis modifitseeritud.