

TURN 488 Challenge DIY BILL OF MATERIALS

PRODUCT NAME	TURN 488 Challenge	CONTACT INFO
APPROVED BY	Zach Hodgson	support@turnracing.com
TOTAL COST	Varies	



Hardware Suppliers

<https://www.albanycountyfasteners.com/>

<https://www.accu.co.uk/en/>

<https://www.gwr-fasteners.co.uk/>

PART NUMBER	PART NAME	DESCRIPTION	PART IMAGE	QUANTITY	SUPPLIER / MANUFACTURER	UNIT COST	TOTAL PART COST
	Turn 488 Challenge Front Plate	5mm Thick Carbon Fiber Plate (Optional rubber grips)	A black, 5mm thick carbon fiber plate with multiple circular cutouts for mounting hardware.	1	https://www.turnracing.com/collections/stand-alone-steering-wheel/products/turn-488-challenge-barebones?variant=32289852489822	\$ 97.00	\$ 97.00
	Turn Paddle Shifter	Anodized aluminum neodymium snap action shifter	A black anodized aluminum paddle shifter with a neodymium magnet and a snap-action switch mechanism.	1 (pair)	https://www.turnracing.com/collections/accessories/products/turn-paddle-shifter	\$ 145.00	\$ 145.00
BU0836A	USB Controller	A small USB joystick interface board	A blue printed circuit board (PCB) labeled "BU0836".	1	http://www.leobodnar.com/shop/index.php?main_page=product_info&cPath=94&products_id=219	\$ 35.43	\$ 35.43
BU0836A	Breakout Board	A small add on board that provides an easy matrix circuit for the BU0836A	A blue printed circuit board (PCB) labeled "leobodnar" and "BU0836A".	1	http://www.leobodnar.com/shop/index.php?main_page=product_info&cPath=94&products_id=274	\$ 21.25	\$ 21.25
IPP3SAD2	Apem Black Flat Top Push Button	This is what I use on the Turn R8 LMS wheel as well. They are quite expensive and difficult to source so I put a link to a page that shows several suppliers with prices	A black push button with a flat top and a metal base.	12	https://octopart.com/ipp3sad2-apem-7548694	\$ 23.58	\$ 282.96
GPB556A05BB	CW Industries Push Button	Low cost flat top button alternative	A black push button with a flat top and a metal base, shown with its mounting hardware.	12	https://www.digikey.com/en/products/detail/cw-industries/GPB556A05BB/3193531	\$ 5.77	\$ 69.24

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	Otto P9	This is the same button used in the real 488 Challenge car		10	https://racespeconline.com/products/otto-p9-momentary-switches?variant=23524189377	\$ 15.00	\$ 150.00
PV5S24011	E-Switch Push Button	momentary switch		12	https://www.digikey.com/product-detail/en/e-switch/PV5S24011/EG5949-ND/4028816	\$ 4.51	\$ 54.12
CTS 288 Short Shaft	Rotary Encoder	Shaft Length: 10.5mm - 16 detents per revolution - 1 pulse per detent - 1:1 mode in our encoder config software - Shaft diameter: 1/4"		2	http://www.leobodnar.com/shop/index.php?main_page=product_info&cPath=98_75&products_id=243	\$ 6.37	\$ 12.74
	M5 Hexagon Nylon Lock Nut	18-8 Stainless Steel Nylon-Insert Locknut, M5 x 0.8 mm Thread. 3 for wheel hub, 6 for grips.		10	https://www.accu.co.uk/en/hexagon-nylon-locking-nuts/7947-HNN-M5-A2	\$ 0.45	\$ 4.50
	M3x.5 lock nut	Medium-Strength Steel Nylon-Insert Locknut, Class 8, Zinc Plated, M3 x 0.5 mm Thread, 4 mm High for button covers and trim pieces		4	https://www.accu.co.uk/en/hexagon-nylon-locking-nuts/7944-HNN-M3-A2	\$ 0.31	\$ 1.24
	M3 x 4mm Set Screw	M3 X 4mm Cup Point Set / Grub Screws (DIN 916) - Marine Stainless Steel (A4)		2	https://www.accu.co.uk/en/cup-point-set-screws/4899-SSU-M3-4-A4	\$ 0.32	\$ 0.64
	M5 x 25mm Socket head	M5 X 25mm Cap Head Screws (DIN 912) - Stainless Steel (A2)		6	https://www.accu.co.uk/en/cap-head-screws/10647-SSC-M5-25-A2	\$ 0.33	\$ 1.98
	M5 x 40mm Flat	M5 X 40mm Socket Countersunk Screws (ISO 10642) - Stainless Steel (A2)		4	https://www.accu.co.uk/en/countersunk-socket-head-screws/5472-SSK-M5-40-A2	\$ 0.37	\$ 1.48

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	M3 x 12mm Flat	M3 X 12mm Socket Countersunk Screws (ISO 10642) - Stainless Steel (A2)		4	https://www.accu.co.uk/en/countersunk-socket-head-screws/5425-SSK-M3-12-A2	\$ 0.46	\$ 1.84
	M4 x 10mm Flat	M4 X 10mm Socket Countersunk Screws (ISO 10642) - Stainless Steel (A2)		4	https://www.accu.co.uk/en/countersunk-socket-head-screws/5447-SSK-M4-10-A2	\$ 0.46	\$ 1.84
	M4 x 14mm Button	M4 X 14mm Socket Button Screws (ISO 7380) - Stainless Steel (A2)		4	https://www.accu.co.uk/en/socket-button-screws/8131-SSB-M4-14-A2	\$ 0.48	\$ 1.92
KVF 40	4 pin connector	Connector Socket PA GF (Body) Front Mount VDC IEC Approved		1	https://www.alliedelec.com/product/lumberg/kvf-40/70151670/	\$ 3.27	\$ 3.27
						TOTAL	Varies