

Steering2_bom_

Component	Description
	1 Capacitor, 0.1uF, 50V, 5%, 0805
	2 Capacitor, 100pF, 50V, 5%, 0805
	3 Capacitor, 1uF, 25V, 10%, 0805
	4 Capacitor, 22uF, 16V, 20%, 1206
	5 Capacitor, 30pF, 50V, 5%, 0805
	6 Capacitor, 47uF, 6.3V, 20%, 0805
	7 Diode, Zener, 18V, 5W, 5%
	8 LED, Green, 2.2V, 20mA, 0805
	9 Fuse, PTC, 500mA, 16V, 1210
	10 Microcontroller, 8-bit, 1KB RAM, 16KB Flash
	11 Connector header through hole 2x3 0.100" (2.54mm)
	12 NanoFit Female Right Angle 2x02
	13 NanoFit Female Right Angle 2x03
	14 NanoFit Female Right Angle 2x04
	15 Inductor, 4.7uH, 4.4A, 25mOhm, 20%
	16 Resistor, 0 ohm jumper, 0.1W, 0603
	17 Resistor, 100, 0.25W, 1%, 0805
	18 Resistor, 10K, 0.25W, 1%, 0805
	19 Resistor, 1K, 0.25W, 1%, 0805
	20 NanoFit Female Right Angle 2x02
	21 Resistor, 200, 0.125W, 5%, 0805
	22 Resistor, 51.1K, 0.125W, 1%, 0805
	23 Linear regulator, 30V max input, 3.3V output, 100mA
	24 High speed CAN transceiver, 1Mb/s
	25 Buck converter, 4.5-17V input, adj 0.76-7V output, 1A, 580kHz
	26 CRYSTAL 16.0000MHZ 18PF SMD

Component Groups:	26
Component Count:	48
Fitted Components:	48
Number of PCBs:	1
Total components:	48
Schematic Version:	
Schematic Date:	
BoM Date:	Wed 05 Dec 2018 09:20:35 PM EST
Schematic Source:	/home/manu/Desktop/Formula/MKIV-Boards/Boards/Steering/Steering2/Steering2.sch
KiCad Version:	Eeschema 5.0.0-fee4fd1~66~ubuntu18.04.1

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Part	References	Value
C_0.1uF	C1 C4 C5 C9 C10 C12	C_0.1uF
C_100pF	C2	C_100pF
C_1uF	C11	C_1uF
C_22uF	C3	C_22uF
C_30pF	C6 C8	C_30pF
C_47uF	C7	C_47uF
D_Zener_18V	D7	D_Zener_18V
LED_0805	D1 D2 D4 D5 D6	LED_0805
F_500mA_16V	F1	500mA
ATMEGA16M1	IC1	ATMEGA16M1
CONN_02X03	J4	CONN_02X03
NF_F_RA_2x02	J3	NF_F_RA_2x02
NF_F_RA_2x03	J1	NF_F_RA_2x03
NF_F_RA_2x04	J2	NF_F_RA_2x04
L_4.7uH	L1	L_4.7uH
R_0	R20	R_0
R_100	R1	R_100
R_10K	R2 R17 R18	R_10K
R_1K	R16	R_1K
R_1M	R8 R10 R13 R14	R_1M
R_200	R3 R4 R5 R6 R7 R9 R11 R12	R_200
R_51.1K	R19	R_51.1K
LM3480	U3	LM3480
MCP2561-E_SN	U1	MCP2561-E_SN
TPS561201	U2	TPS561201
Crystal_SMD	Y1	Crystal_SMD

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Footprint	Quantity Per PCB
C_0805_OEM	6
C_0805_OEM	1
C_0805_OEM	1
C_1206_OEM	1
C_0805_OEM	2
C_0805_OEM	1
DO-214AA	1
LED_0805_OEM	5
Fuse_1210	1
TQFP-32_7x7mm_Pitch0.8mm	1
Pin_Header_Straight_2x03	1
Molex_Nano-Fit_105314-xx04_2x02_P2.50mm_Horizontal	1
Molex_Nano-Fit_105314-xx06_2x03_P2.50mm_Horizontal	1
Molex_Nano-Fit_105314-xx08_2x04_P2.50mm_Horizontal	1
4.7uH_Inductor_OEM	1
R_0603_1608Metric	1
R_0805_OEM	1
R_0805_OEM	3
R_0805_OEM	1
R_0805_OEM	4
R_0805_OEM	8
R_0805_OEM	1
SOT-23-3-Lead_TabPin2	1
SOIC-8_3.9x4.9mm_Pitch1.27mm_OEM	1
SOT-23-6_OEM	1
Crystal_SMD_FA238	1

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Datasheet

<http://datasheets.avx.com/X7RDielectric.pdf>
https://content.kemet.com/datasheets/KEM_C1003_C0G_SMD.pdf
<http://datasheets.avx.com/X7RDielectric.pdf>
http://www.samsungsem.com/kr/support/product-search/mlcc/___icsFiles/afiedfile/2017/07/28/S_CL31A226KOCLFNC.pdf
https://media.digikey.com/pdf/Data%20Sheets/Samsung%20PDFs/CL_Series_MLCC_ds.pdf
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http://www.osram-os.com/Graphics/XPic9/00078860_0.pdf
<https://belfuse.com/resources/CircuitProtection/datasheets/OZCH%20Nov2016.pdf>
http://www.atmel.com/Images/Atmel-8209-8-bit%20AVR%20ATmega16M1-32M1-64M1_Datasheet.pdf
<http://portal.fciconnect.com/Comergent/fci/drawing/67996.pdf>
https://www.molex.com/pdm_docs/sd/1053141104_sd.pdf
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<http://industrial.panasonic.com/www-cgi/jvcr13pz.cgi?E+PZ+3+AOA0001+ERJ3GEY0R00V+7+WW>
<https://www.seielect.com/Catalog/SEI-rncp.pdf>
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<https://www.seielect.com/Catalog/SEI-rncp.pdf>
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<https://industrial.panasonic.com/cdbs/www-data/pdf/RDA0000/AOA0000C304.pdf>
<http://www.ti.com/lit/ds/symlink/lm3480.pdf>
<http://www.microchip.com/mymicrochip/filehandler.aspx?ddocname=en561044>
<http://www.ti.com/lit/ds/symlink/tps561201.pdf>
https://support.epson.biz/td/api/doc_check.php?dl=brief_FA-238V_en.pdf

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Package	MPN	MFN
Value	478-3352-1-ND	DigiKey
Value	399-1122-1-ND	DigiKey
Value	478-10487-1-ND	DigiKey
Value	1276-2725-1-ND	DigiKey
Value	1276-1130-1-ND	DigiKey
Value	587-4280-1-ND	DigiKey
DO-214AA (SMB)	SMBJ5355B-TPMSCT-ND	DigiKey
Value	475-1410-1-ND	DigiKey
Value	507-1786-1-ND	DigiKey
Value	ATMEGA16M1-AU-ND	DigiKey
Value	609-3234-ND	DigiKey
	WM14976-ND	DigiKey
	WM14977-ND	DigiKey
	WM14978-ND	DigiKey
Value	445-6583-1-ND	DigiKey
	P0.0GCT-ND	DigiKey
Value	RNCP0805FTD100RCT-ND	DigiKey
	CRS0805-FX-1002ELFCT-ND	DigiKey
	RNCP0805FTD1K00CT-ND	DigiKey
	RMCF0805JT1M00CT-ND	DigiKey
Value	RMCF0805JT200RCT-ND	DigiKey
	P51.1KCCT-ND	DigiKey
	LM3480IM3-3.3CT-ND	DigiKey
	MCP2561-E/SN-ND	DigiKey
Value	TPS561201	DigiKey
Value	SER3686CT-ND	DigiKey

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PurchasingLink

<https://www.digikey.com/products/en?keywords=478-3352-1-ND>

<https://www.digikey.com/product-detail/en/kemet/C0805C101J5GACTU/399-1122-1-ND/411397>

<https://www.digikey.com/product-detail/en/avx-corporation/08053C105JAT2A/478-10487-1-ND/6797628>

<https://www.digikey.com/products/en?keywords=1276-2725-1-ND>

<https://www.digikey.com/product-detail/en/samsung-electro-mechanics-america-inc/CL21C300JBANNNC/1276-1130-1-ND/38>

<https://www.digikey.com/product-detail/en/taiyo-yuden/JMK212BBJ476MG-T/587-4280-1-ND/5344315>

<https://www.digikey.com/products/en?keywords=SMBJ5355B-TPMSCT-ND>

<https://www.digikey.com/products/en?keywords=475-1410-1-ND>

<https://www.digikey.com/product-detail/en/bel-fuse-inc/OZCH0050FF2G/507-1786-1-ND/4156209>

<https://www.digikey.com/product-detail/en/atmel/ATMEGA16M1-AU/ATMEGA16M1-AU-ND/2271208>

<https://www.digikey.com/product-detail/en/amphenol-fci/67997-206HLF/609-3234-ND/1878491>

<https://www.digikey.com/product-detail/en/molex-llc/1053141204/WM14976-ND/6131618>

<https://www.digikey.com/product-detail/en/molex-llc/1053141206/WM14977-ND/6131619>

<https://www.digikey.com/product-detail/en/molex-llc/1053141208/WM14978-ND/6131620>

<https://www.digikey.com/product-detail/en/tdk-corporation/VLP8040T-4R7M/445-6583-1-ND/2465893>

<https://www.digikey.com/product-detail/en/panasonic-electronic-components/ERJ-3GEY0R00V/P0.0GCT-ND/134711>

<https://www.digikey.com/products/en?keywords=RNCP0805FTD100RCT-ND>

<https://www.digikey.com/products/en?keywords=CRS0805-FX-1002ELFCT-ND>

<https://www.digikey.com/products/en?keywords=RNCP0805FTD1K00CT-ND>

<https://www.digikey.com/product-detail/en/stackpole-electronics-inc/RMCF0805JT1M00/RMCF0805JT1M00CT-ND/1942600>

<https://www.digikey.com/products/en?keywords=RMCF0805JT200RCT-ND>

<https://www.digikey.com/product-detail/en/panasonic-electronic-components/ERJ-6ENF5112V/P51.1KCCT-ND/119466>

<https://www.digikey.com/product-detail/en/texas-instruments/LM3480IM3-3.3/LM3480IM3-3.3CT-ND/3701583>

<https://www.digikey.com/products/en?keywords=mcp2561-e%2Fsn>

<https://www.digikey.com/products/en?keywords=296-46928-1-ND>

<https://www.digikey.com/products/en?keywords=SER3686CT-ND>