

Science Sensor Node V1 BOM			Engineer:	Trevor Murphy		Prepared For:	OSURC Rover Team <th>Sheet ID</th> <th colspan="2">Manuf. Capability</th> <td colspan="2">\$0.00</td>			Sheet ID	Manuf. Capability		\$0.00		
Catagory	Item Name	Part Designator (if applicable)	Part Value	Link	Vendor	Vender No	Price	BOM Quantity	BOM Total	Purch. Quan.	Notes	BOM Total:	\$50.76	Purchase Total:	\$70.50
Res		Mech R1	10k	Link	Digikey	RMCF0603FT10K	\$0.01	1	\$0.01	100					\$0.65
Res		Mech R2	3.24k	Link	Digikey	RMCF0603FT3K2	\$0.01	1	\$0.01	100					\$0.65
Res		Mech R3, R6, R7, R8, R9, R18, R19	470	Link	Digikey	RMCF0603FT470F	\$0.01	7	\$0.05	100					\$0.65
Res		Mech R4, R5	33	Link	Digikey	RMCF0603FT33R	\$0.01	2	\$0.01	100					\$0.65
Res		Mech R10, R11, R13, R15	1k	Link	Digikey	RMCF0603FT1K0	\$0.01	4	\$0.03	100					\$0.65
Res		Mech R12, R25	10k	Link	Digikey	RMCF0603FT10K	\$0.01	2	\$0.01	100					\$0.65
Res		Mech R14	330	Link	Digikey	RMCF0603FT330F	\$0.01	1	\$0.01	100					\$0.65
Res		Mech R16, R21, R24	2.2k	Link	Digikey	RMCF0603FT2K2	\$0.01	3	\$0.02	100					\$0.65
Res		Mech R20	220	Link	Digikey	RMCF0603FT220F	\$0.01	1	\$0.01	100					\$0.65
Res		Mech R22	100k	Link	Digikey	RMCF0603FT100K	\$0.01	1	\$0.01	100					\$0.65
Cap		Mech C1, C2	1uF	Link	Digikey	490-12590-1-ND	\$0.22	2	\$0.44	5					\$1.10
Cap		Mech C3, C10, C11, C12, C16, C17, C18, C20	100nF	Link	Digikey	490-14407-1-ND	\$0.16	8	\$1.26	20					\$3.14
Cap		Mech C4, C7	10uF	Link	Digikey	490-18663-1-ND	\$0.49	1	\$0.49	3					\$1.47
Cap		Mech C5, C6	22uF	Link	Digikey	490-10511-1-ND	\$0.38	2	\$0.76	5					\$1.90
Cap		Mech C8	4.7uF	Link	Digikey	490-10751-1-ND	\$0.41	1	\$0.41	3					\$1.23
Cap		Mech C9	33uF	Link	Digikey	1189-4070-ND	\$0.33	1	\$0.33	3					\$0.99
Cap		Mech C13, C14, C15	2.2uF	Link	Digikey	490-14467-1-ND	\$0.28	3	\$0.84	7					\$1.96
Cap		Mech C19, C21	10nF	Link	Digikey	399-17616-1-ND	\$0.11	2	\$0.22	5					\$0.55
Diode		Mech D1	100v, 300mA	Link	Digikey	1N4148W-13FDC	\$0.18	1	\$0.18	3					\$0.54
Diode	USB Rectifier ON Semiconductor	Mech D2	100v 200mA	Link	Digikey	BAS16HT1GOSCT	\$0.11	1	\$0.11	3					\$0.33
Diode	Blue LED	Mech D3		Link	Digikey	732-4966-1-ND	\$0.16	1	\$0.16	0					\$0.00
Diode	RGB LED	Mech D4		Link	Digikey	CLV1A-FKB-CHMH	\$0.40	1	\$0.40	2	For some reason not the same one as atmospheric node???				\$0.80
Diode	Red LED	Mech D5		Link	Digikey	160-1176-1-ND	\$0.37	1	\$0.37	0					\$0.00
Diode	Green LED	Mech D6, D8, D9, D10		Link	Digikey	160-1423-1-ND	\$0.20	4	\$0.80	0					\$0.00
Inductor		Mech L1	4.7uH	Link	Digikey	732-3031-1-ND	\$2.09	1	\$2.09	2					\$4.18
Inductor		Mech L2	12uH	Link	Digikey	732-1224-1-ND	\$2.25	1	\$2.25	2					\$4.50
Inductor	Ferrite Bead	Mech L3, L4		Link	Digikey	240-2378-1-ND	\$0.13	2	\$0.26	0					\$0.00
Mos		Mech Q1		Link	Digikey	785-1063-1-ND	\$0.58	1	\$0.58	3					\$1.74
Mos		Mech Q2		Link	Digikey	IPD90P04P405ATI	\$1.89	1	\$1.89	2					\$3.78
Mos		Mech Q3		Link	Digikey	1727-4692-1-ND	\$0.17	1	\$0.17	3					\$0.51
IC	3v lin reg MCP1700T3302EMBC	Mech U1		Link	DigiKey	MCP1700T-3302E	\$0.37	1	\$0.37	2					\$0.74
IC	5v switching reg Diodes Inc. AP6	Mech U2		Link	DigiKey	AP63205WU-7DIC	\$1.37	1	\$1.37	0	CURRENTLY OUT OF STOCK ON DIGIKEY (but we should have alr				\$0.00
IC	5v 4A switching reg	Mech U3		Link	DigiKey	296-26997-1-ND	\$4.80	1	\$4.80	2					\$9.60
IC	N-channel motor MOSFET	Mech U4, U5		Link	DigiKey	SI2356DS-T1-GE3	\$0.40	2	\$0.80	5					\$2.00
IC	teensy 3.2 Freescale MK20DX25	Mech U6		Link	Mouser	MK20DX256VLH7	\$8.66	1	\$8.66	0					\$0.00
IC	teensy bootloader NXP Semicon	Mech U7		Link	PJRC	IC_MKL04Z32_TQ	\$6.95	1	\$6.95	0					\$0.00
IC	Motor Controller	Mech U8		Link	DigiKey	497-17630-1-ND	\$3.59	1	\$3.59	2					\$7.18
IC	rs485 transceiver STMicroelectro	Mech U9		Link	DigiKey	497-6540-1-ND	\$1.59	2	\$3.18	4					\$6.36
Timer	Crystal Timer AVX CX2520DB16	Mech X1	16 MHz	Link	Digikey	1253-1122-1-ND	\$0.92	1	\$0.92	0					\$0.00
Switch	tactile switch Panasonic EVP-AA	Mech SW1		Link	Digikey	P13349SCT-ND	\$0.85	1	\$0.85	0					\$0.00
Conn	3 pin Molex 0534260310	Mech J1, J2, J3, J4, J5, J6, J8		Link	Digikey	WM7586-ND	\$0.43	2	\$0.86	0					\$0.00
Conn	XT-30 female	Mech J7, J9, J10		???	???	???	???	3		0					
Conn	2 pin Molex 0534260210	Mech J11, J13		Link	Digikey	WM3423-ND	\$0.34	2	\$0.68	5					\$1.70
Conn	Mini USB Molex 0548190519	Mech J12		Link	Digikey	WM17115-ND	\$1.72	1	\$1.72	0					\$0.00
Conn	XT-30 male	Mech J14		???	???	???	???	1		0					
TP	Test Point (Black)	Mech TP		Link	Digikey	36-5001-ND	\$0.31	6	\$1.85	25	Unit price lower with purchase of 25+				\$7.70