



Title		
pyEC Control Layer V1.2 Schematic		
Size	Number	Revision
B		
Date:	3/21/2020	Sheet of
File:	D:\OneDrive\pyEC\Control Layer v1.2 Schematic	Download By: Brian Barrett

Item #	mn Name Error:Manufa	#Column Name Error:Manufacturer No	Quantity	#Column Name Error:Note	Designator	Description	Footprint	Comment	LibRef
1			1		Buzzer		Buzzer - SMD 5mm	Buzzer	Buzzer
2			4		C1, C2, C11, C12	SMT Capacitor	CAP 0603/1608 RF	12p	Capacitor
3			9		C3, C4, C5, C6, C8, C9, C13, C14, C18	SMT Capacitor	CAP 0603/1608 RF	0.1uF	Capacitor
4			1		C7	SMT Capacitor	CAP 0603/1608 RF	4.7uF	Capacitor
5			3		C10, C15, C16	SMT Capacitor	CAP 0603/1608 RF	1uF	Capacitor
6			2		C11B, CB	SMT Capacitor	CAP 0603/1608 RF	2.2uF	Capacitor
7			2		C17, C19	SMT Capacitor	CAP 0603/1608 RF	4u7	Capacitor
8			3		D1, D2, D9		SOD-123	Diode	Diode
9			1		HOSC		TXC-SMD-32X25 - 4Pin	12MHz	TXC-CRYSTAL32X25
10			1		Header	Header, 5-Pin, Right Angle	1.0mm 2X25 Header - Dbl Layer - 0.45via	Header 2*25P Bike Controller	Header 2*25P Bike Controller
11			6		I2C1, I2C2, I2C3, I2C4, R3, RU	SMT Resistor	CAP 0603/1608 RF	4k7	Resistor
12			8		J3.3V, J5V, J12V, JCAN, JCH, JCL, JD1, JD2		JMP SMD	Solder Jumper	Solder Jumper
13			1		JBT	Header, 2-Pin, Right Angle	2 pin 1.27mm	Header 2H	Header 2H
14			1		JTAG		2*4 pin 1.27mm	JTAG STM32	JTAG STM32
15			8		L1, R5, R7, R11, R23, RB, RG, RR	SMT Inductor, SMT Resistor, SMT Resistor, SMT Resistor, SMT Resistor, SMT Resistor, SMT Resistor, SMT Resistor	CAP 0603/1608 RF	1k	Inductor, Resistor, Resistor, Resistor, Resistor, Resistor, Resistor, Resistor
16			1		LED	4 pin RGB LED	LED 0603 RGB	Value	LED 0603 RGB
17			1		LOSC		TXC-SMD-32X15	32.768kHz	TXC-CRYSTAL32X15
18			1		MCP1802		SOT-23-5	MCP1802	MCP1802
19			1		MCP6002	FET Operational Amplifier	SOIC8	Op Amp Double	Op Amp Double
20			1		MIC2005A		SOT-23 (6)	MIC2005A	MIC2005A
21			1		PTC	SMT Resistor	CAP 0603/1608 RF	0.5A	Resistor
22			2		R1, R2	SMT Resistor	CAP 0603/1608 RF	22	Resistor
23			2		R4, R6	SMT Resistor	CAP 0603/1608 RF	2k	Resistor
24			2		R8, R10	SMT Resistor	CAP 0603/1608 RF	560R	Resistor
25			4		R9, R12, R14, R15	SMT Resistor	CAP 0603/1608 RF	100K	Resistor
26			1		R13	SMT Resistor	CAP 0603/1608 RF	10M	Resistor
27			1		R16	SMT Resistor	CAP 0603/1608 RF	28K	Resistor
28			2		R17, R24	SMT Resistor	CAP 0603/1608 RF	10K	Resistor
29			1		R20	SMT Resistor	CAP 0603/1608 RF	120	Resistor
30			1		RCAN	SMT Resistor	CAP 0603/1608 RF	120R	Resistor
31			2		RST, USR	Single-Pole, Single-Throw Switch	Switch 2x3x4.5 SMD and SH1.0	SW-SPST	SW-SPST
32			1		SD Card		MOLEX-SD-47309	MOLEX-SD	MOLEX-SD
33			1		STM32F405		LQFP64	STM32F405	STM32F405
34			1		T4	PNP Bipolar Transistor	SOT-23	NPN	NPN
35			1		TCAN	IC TXRX CAN FAULT PROT 8SOIC	SOIC8	TCAN1042	TCAN1042
36			1		USB		Micro USB	USB-MICRO-AB	USB-MICRO-AB