



Title		
Size A3	Number	Revision
Date:	2020. 09. 12.	Sheet of
File:	D:\Elektronika\...CONTROL BOARD	MDrShDy:

Designator	Quantity	Name	Value	Description	Distributor	Reference ID	Comment
BAT1	1			battery			
C1, C2, C5, C6, C10, C	9		100n	NON POLARIZED CAPACITOR			100n
C3, C7, C8	3		10u	POLARIZED CAPACITOR			10u
C4, C9	2		220uF	POLARIZED CAPACITOR			220uF
C11	1		4,7u	NON POLARIZED CAPACITOR			4,7u
C12	1		1u	NON POLARIZED CAPACITOR			1u
C17, C18	2		6.8p	NON POLARIZED CAPACITOR			6.8p
D3	1	MBR360	MBR360	ON Semiconductor MBR360, SCHOTTKY			MBR360
D4	1	PNS40010ER	PNS40010ER,115	Nexperia PNS40010ER, 115 switching diode 1.4	RS Components	136-4874	PNS40010ER
J1	1	T821	T821110A1S100C	T821, 10pin, 2x5 connector, 2.54mm	RS Components	832-3528	T821110A1S100CEU
J2	1			5PIN miniUSB SMD connector	LOMEX	43-28-33	
J3	1		UART	4 PIN HEADER			UART
J4	1			5 PIN HEADER			
J5	1			2 PIN HEADER			
J6	1	5V 2A DC	282837-2	2 Pin Terminal Block	RS Components	710-0100	5V 2A DC
JP1	1	BOOT0		JUMPER			BOOT0
JP2	1	RESET		JUMPER			RESET
M1	1	NodeMCU		Node MCU ESP12 module			NodeMCU
R1	1		2k	RESISTOR			2k
R2, R4, R6, R9	4		1k	RESISTOR			1k
R3, R5	2		22R	RESISTOR			22R
R7, R10, R11, R12, R	5		10k	RESISTOR			10k
R8	1		0R	RESISTOR			0R
U1	1			Voltage level shifter			
U2	1	LM2937	LM2937IMP-3.3/N	LDO-regulator 400mA 3,3 V 5%, 4,75 → 26 V	RS Components	761-5599	LM2937
U3	1	STM32F446	STM32F446RET6	MCU STM32F446RET6 32bit, ARM Cortex M4,	RS Components	110-6621	STM32F446
U4	1	TMP100	TMP100	Temperature sensor with I2C interface			TMP100
X1	1	X32K768L104	32.768 kHz	Crystal, 32.768 kHz, Cylinder Radial, 8mm x 3	Farnell	9509682	32.768 kHz