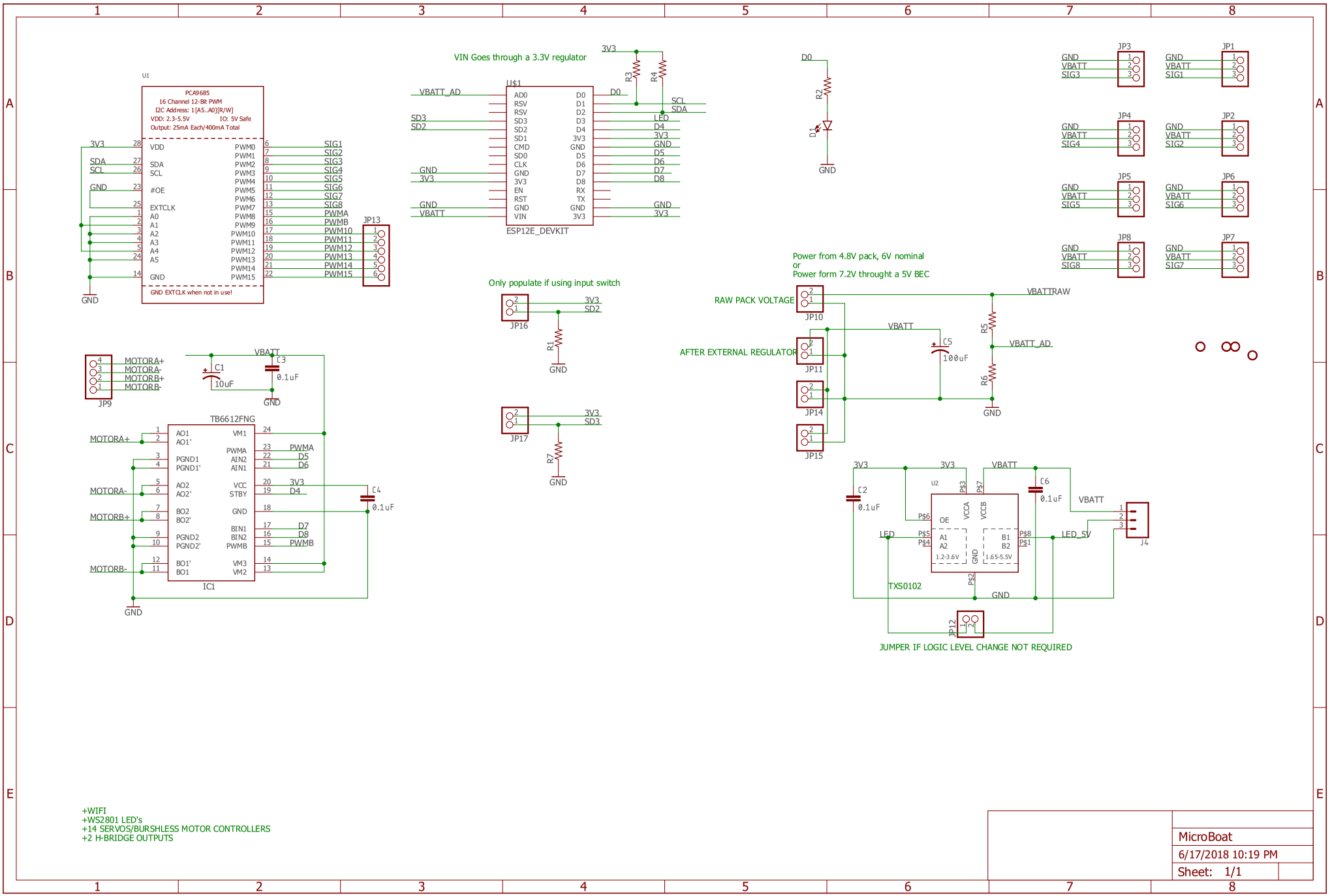
U1
PCA9685
16 Channel 12-Bit PWM
I2C Address: 1[A5..A0][R/W]
VDD: 2.3-5.5V IO: 5V Safe
Output: 25mA Each/400mA Total
VDD
SDA
SCL
#OE
EXTCLK
A0
A1
A2
A3
A4
A5
GND
PWM0
PWM1
PWM2
PWM3
PWM4
PWM5
PWM6
PWM7
PWM8
PWM9
PWM10
PWM11
PWM12
PWM13
PWM14
PWM15
GND EXTCLK when not in use!
JP13
VIN Goes through a 3.3V regulator
U$1
ESP12E_DEVKIT
VBATT_AD
SD3
SD2
AD0
RSV
CMD
SD0
CLK
EN
RST
VIN
D0
D1
D2
D3
D4
3V3
D5
D6
D7
D8
RX
TX
R3
R4
R2
D1
Only populate if using input switch
JP16
JP17
R1
R7
Power from 4.8V pack, 6V nominal
or
Power form 7.2V throught a 5V BEC
RAW PACK VOLTAGE
AFTER EXTERNAL REGULATOR
JP10
JP11
JP14
JP15
VBATTRAW
VBATT
C5
100uF
R5
R6
VBATT_AD
JP3
JP4
JP5
JP8
JP1
JP2
JP6
JP7
SIG1
SIG2
SIG3
SIG4
SIG5
SIG6
SIG7
SIG8
JP9
MOTORA+
MOTORA-
MOTORB+
MOTORB-
C1
10uF
C3
0.1uF
TB6612FNG
IC1
AO1
AO1'
PGND1
PGND1'
AO2
AO2'
BO2
BO2'
PGND2
PGND2'
BO1'
BO1
VM1
PWMA
AIN2
AIN1
VCC
STBY
BIN1
BIN2
PWMB
VM3
VM2
C4
0.1uF
U2
TXS0102
OE
A1
A2
B1
B2
VCCA
VCCB
1.2-3.6V
1.65-5.5V
C2
0.1uF
C6
0.1uF
LED
LED_5V
J4
JP12
JUMPER IF LOGIC LEVEL CHANGE NOT REQUIRED
+WIFI
+WS2801 LED's
+14 SERVOS/BURSHLESS MOTOR CONTROLLERS
+2 H-BRIDGE OUTPUTS
MicroBoat
6/17/2018 10:19 PM
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