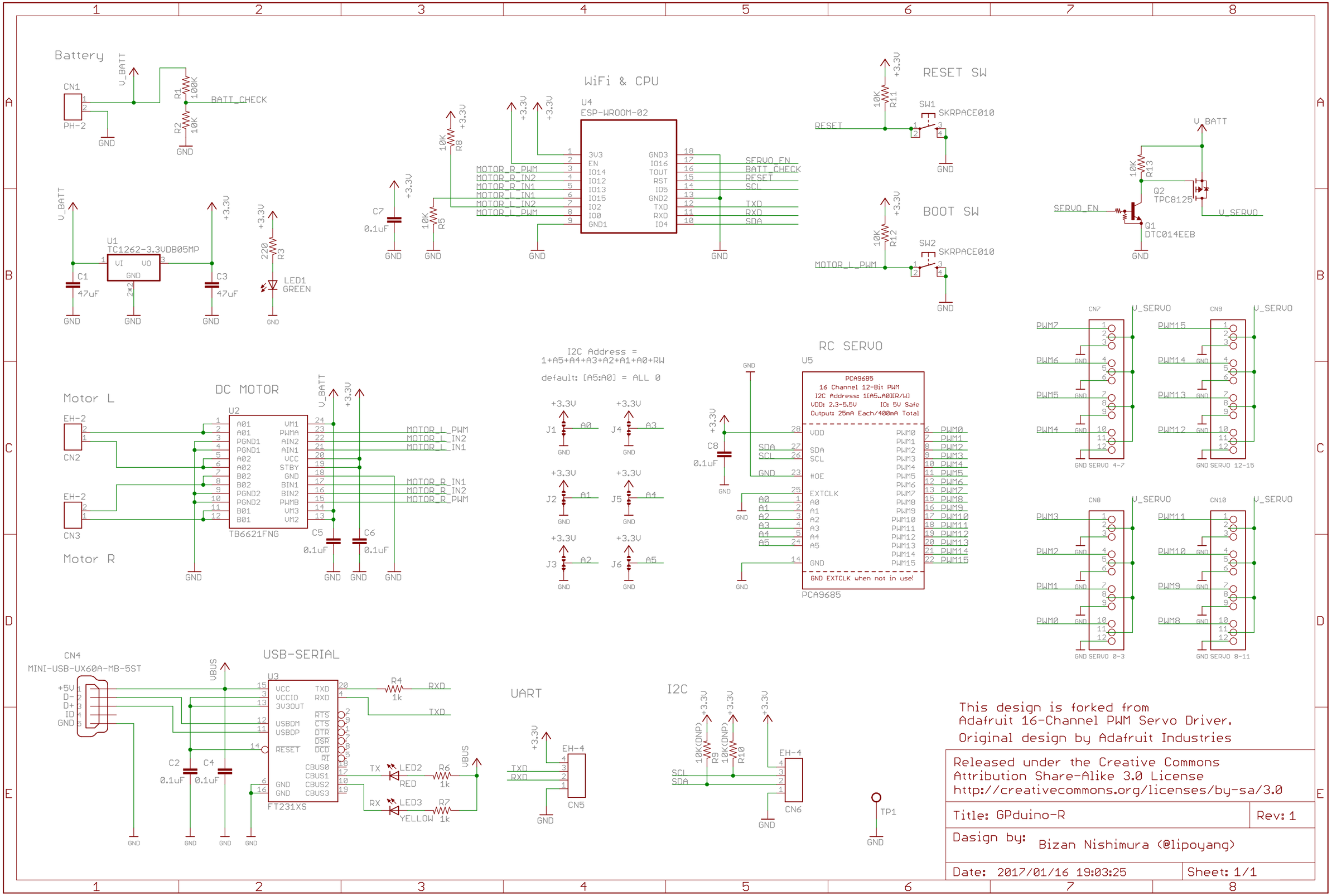
Battery
CN1
PH-2
V_BATT
R1 100K
R2 10K
BATT_CHECK
GND
WiFi & CPU
U4
ESP-WROOM-02
3V3
EN
IO14
IO12
IO13
IO15
IO2
IO0
GND1
GND3
IO16
TOUT
RST
IO5
GND2
TXD
RXD
IO4
MOTOR_R_PWM
MOTOR_R_IN2
MOTOR_R_IN1
MOTOR_L_IN1
MOTOR_L_IN2
MOTOR_L_PWM
SERVO_EN
BATT_CHECK
RESET
SCL
TXD
RXD
SDA
C7 0.1uF
R8 10K
R5 10K
+3.3V
RESET SW
SW1 SKRPACE010
R11 10K
BOOT SW
SW2 SKRPACE010
R12 10K
Q2 TPC8125
Q1 DTC014EEB
R13 10K
V_SERVO
U1 TC1262-3.3VDB05MP
VI
VO
C1 47uF
C3 47uF
R3 220
LED1 GREEN
Motor L
Motor R
EH-2
CN2
CN3
DC MOTOR
U2
TB6621FNG
A01
PGND1
A02
B02
PGND2
B01
VM1
PWMA
AIN2
AIN1
VCC
STBY
BIN1
BIN2
PWMB
VM3
VM2
C5 0.1uF
C6 0.1uF
I2C Address =
1+A5+A4+A3+A2+A1+A0+RW
default: [A5:A0] = ALL 0
J1 A0
J2 A1
J3 A2
J4 A3
J5 A4
J6 A5
RC SERVO
U5
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
GND
#OE
EXTCLK
A0
A1
A2
A3
A4
A5
PWM0
PWM1
PWM2
PWM3
PWM4
PWM5
PWM6
PWM7
PWM8
PWM9
PWM10
PWM11
PWM12
PWM13
PWM14
PWM15
GND EXTCLK when not in use!
C8 0.1uF
CN7
CN9
CN8
CN10
GND SERVO 4-7
GND SERVO 12-15
GND SERVO 0-3
GND SERVO 8-11
USB-SERIAL
CN4
MINI-USB-UX60A-MB-5ST
+5V
D-
D+
ID
GND
VBUS
U3
FT231XS
VCC
VCCIO
3V3OUT
USBDM
USBDP
RESET
TXD
RXD
RTS
CTS
DTR
DSR
DCD
RI
CBUS0
CBUS1
CBUS2
CBUS3
C2 0.1uF
C4 0.1uF
R4 1k
R6 1k
R7 1k
LED2 RED
LED3 YELLOW
UART
EH-4
CN5
I2C
R9 10K(DNP)
R10 10K(DNP)
CN6
TP1
This design is forked from
Adafruit 16-Channel PWM Servo Driver.
Original design by Adafruit Industries
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Title: GPduino-R
Rev: 1
Dasign by: Bizan Nishimura (@lipoyang)
Date: 2017/01/16 19:03:25
Sheet: 1/1