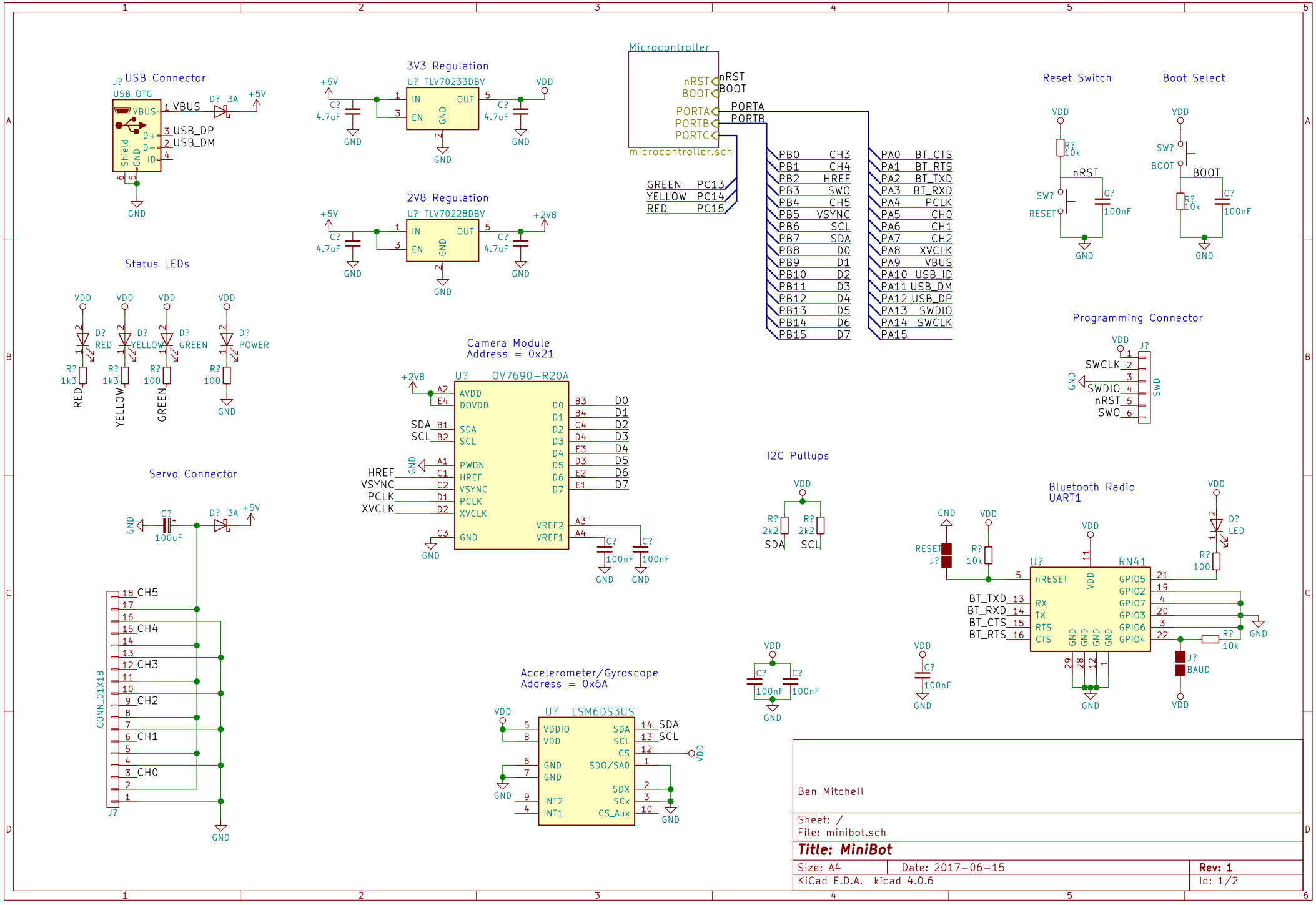
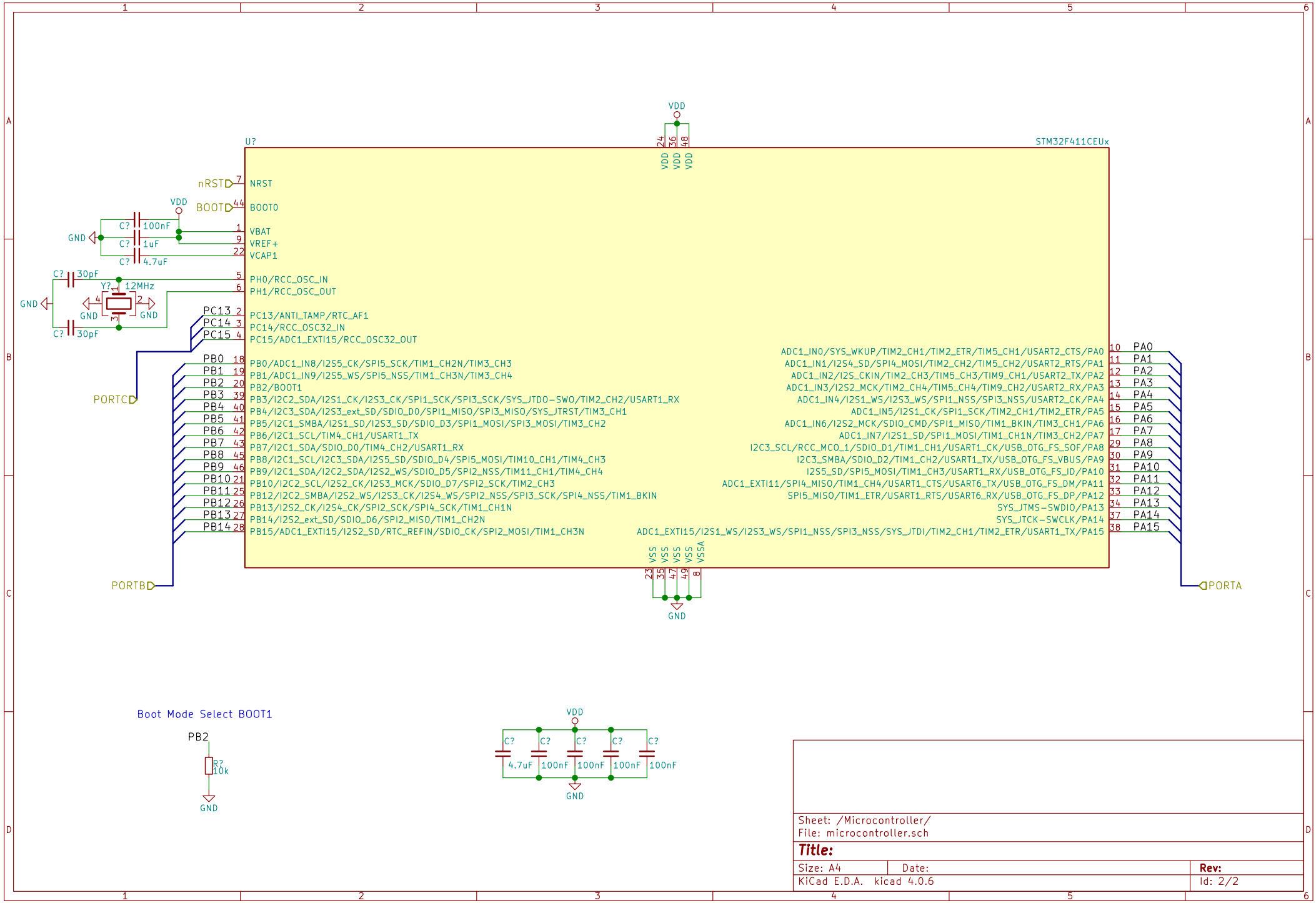

USB Connector
J? USB_OTG
VBUS
D+
D-
ID
Shield
GND
VBUS
USB_DP
USB_DM
D? 3A
+5V
3V3 Regulation
U? TLV70233DBV
IN
OUT
EN
GND
C? 4.7uF
VDD
2V8 Regulation
U? TLV70228DBV
+2V8
Microcontroller
nRST
BOOT
PORTA
PORTB
PORTC
microcontroller.sch
GREEN PC13
YELLOW PC14
RED PC15
PB0 CH3
PB1 CH4
PB2 HREF
PB3 SWO
PB4 CH5
PB5 VSYNC
PB6 SCL
PB7 SDA
PB8 D0
PB9 D1
PB10 D2
PB11 D3
PB12 D4
PB13 D5
PB14 D6
PB15 D7
PA0 BT_CTS
PA1 BT_RTS
PA2 BT_TXD
PA3 BT_RXD
PA4 PCLK
PA5 CH0
PA6 CH1
PA7 CH2
PA8 XVCLK
PA9 VBUS
PA10 USB_ID
PA11 USB_DM
PA12 USB_DP
PA13 SWDIO
PA14 SWCLK
PA15
Reset Switch
R? 10k
SW?
RESET
C? 100nF
Boot Select
BOOT
Status LEDs
D? RED
D? YELLOW
D? GREEN
D? POWER
R? 1k3
R? 100
Camera Module
Address = 0x21
U? OV7690-R20A
AVDD
DOVDD
SDA
SCL
PWDN
HREF
VSYNC
PCLK
XVCLK
GND
VREF2
VREF1
D0
D1
D2
D3
D4
D5
D6
D7
C? 100nF
Programming Connector
J?
SWCLK
SWDIO
nRST
SWO
SWD
Servo Connector
C? 100uF
CONN_01X18
CH5
CH4
CH3
CH2
CH1
CH0
I2C Pullups
R? 2k2
SDA
SCL
Bluetooth Radio
UART1
U? RN41
nRESET
RX
TX
RTS
CTS
GPIO5
GPIO2
GPIO7
GPIO3
GPIO6
GPIO4
BT_TXD
BT_RXD
BT_CTS
BT_RTS
D? LED
R? 100
R? 10k
J? BAUD
Accelerometer/Gyroscope
Address = 0x6A
U? LSM6DS3US
VDDIO
VDD
GND
INT2
INT1
SDO/SA0
SDX
SCx
CS_Aux
CS
Ben Mitchell
Sheet: /
File: minibot.sch
Title: MiniBot
Size: A4
Date: 2017-06-15
Rev: 1
KiCad E.D.A. kicad 4.0.6
Id: 1/2



Sheet: /Microcontroller/
File: microcontroller.sch

Title:

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KiCad E.D.A. kicad 4.0.6		Id: 2/2