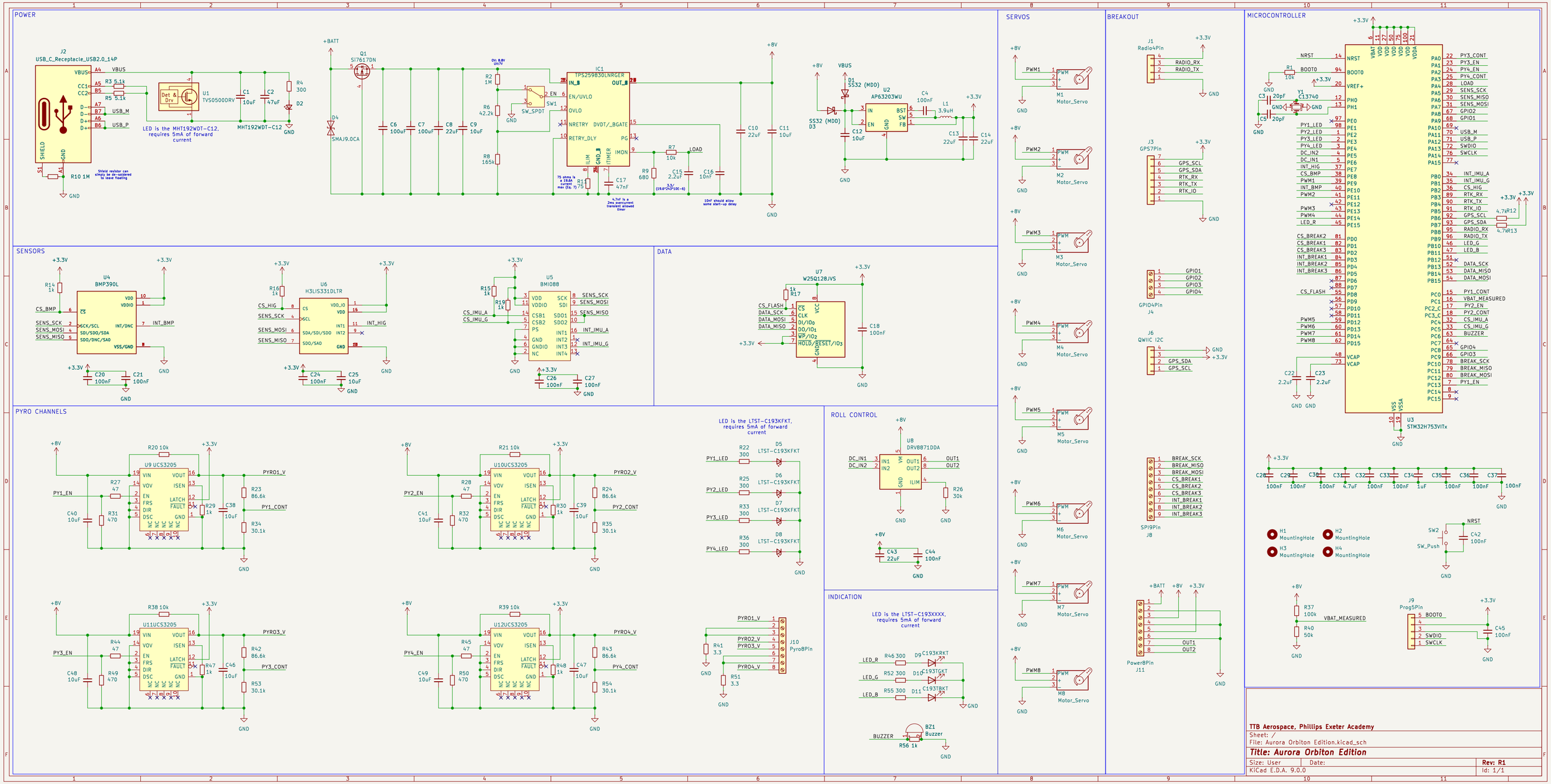
POWER
J2
USB_C_Receptacle_USB2.0_14P
VBUS
CC1
CC2
D-
D-
D+
D+
SHIELD
GND
R3 5.1k
R5 5.1k
USB_M
USB_P
U1
TVS0500DRV
Det & Drv
C1 10uF
C2 47uF
R4 300
D2
MHT192WDT-C12
LED is the MHT192WDT-C12, requires 5mA of forward current
S1
R10 1M
Shield resistor can simply be de-soldered to leave floating
+BATT
Q1
SI7617DN
D4
SMAJ9.0CA
C6 100uF
C7 100uF
C8 22uF
C9 10uF
R2 1M
R6 42.2k
R8 165k
SW1
SW_SPDT
IC1
TPS259830LNRGER
IN
EN/UVLO
OVLO
NRETRY
RETRY_DLY
OUT
DVDT/_BGATE
PG
IMON
ILIM
GND
ITIMER
R1 75
C17 47nF
R7 10k
LOAD
R9 680
C15 2.2uF
C16 10nF
C10 22uF
C11 10uF
+8V
VBUS
D1
SS32 (MDD)
D3
SS32 (MDD)
U2
AP63203WU
IN
EN
BST
SW
FB
GND
C12 10uF
C4 100nF
L1 3.9uH
C13 22uF
C14 22uF
+3.3V
SENSORS
U4
BMP390L
VDD
VDDIO
CS
SCK/SCL
SDI/SDO/SDA
SDO/DNC/SAO
INT/DNC
VSS/GND
CS_BMP
SENS_SCK
SENS_MOSI
SENS_MISO
INT_BMP
C20 100nF
C21 100nF
U6
H3LIS331DLTR
VDD_IO
VDD
CS
SCL
SDA/SDI/SDO
SDO/SAO
INT1
INT2
GND
R16 1k
CS_HIG
SENS_SCK
SENS_MOSI
SENS_MISO
INT_HIG
C24 100nF
C25 10uF
U5
BMI088B
VDD
VDDIO
CSB1
CSB2
PS
GND
GNDIO
NC
SCK
SDI
SDO1
SDO2
INT1
INT2
INT3
INT4
R15 1k
R19 1k
CS_IMU_A
CS_IMU_G
SENS_SCK
SENS_MOSI
SENS_MISO
INT_IMU_A
INT_IMU_G
C26 100nF
C27 100nF
DATA
U7
W25Q128JVS
CS
CLK
DI/IO0
DO/IO1
WP/IO2
HOLD/RESET/IO3
VCC
GND
R17 1k
CS_FLASH
DATA_SCK
DATA_MOSI
DATA_MISO
C18 100nF
PYRO CHANNELS
U9 UCS3205
U10UCS3205
U11UCS3205
U12UCS3205
VIN
VOV
EN
FRS
DIR
DSC
VOUT
ISEN
LATCH
FAULT
GND
R20 10k
R21 10k
R38 10k
R39 10k
PY1_EN
PY2_EN
PY3_EN
PY4_EN
R27 47
R28 47
R44 47
R45 47
R31 470
R32 470
R49 470
R50 470
C40 10uF
C41 10uF
C48 10uF
C49 10uF
R29 1k
R30 1k
R47 1k
R48 1k
C38 10uF
C39 10uF
C46 10uF
C47 10uF
R23 86.6k
R24 86.6k
R42 86.6k
R43 86.6k
R34 30.1k
R35 30.1k
R53 30.1k
R54 30.1k
PYRO1_V
PYRO2_V
PYRO3_V
PYRO4_V
PY1_CONT
PY2_CONT
PY3_CONT
PY4_CONT
LED is the LTST-C193KFKT, requires 5mA of forward current
D5
D6
D7
D8
LTST-C193KFKT
R22 300
R25 300
R33 300
R36 300
PY1_LED
PY2_LED
PY3_LED
PY4_LED
R41 3.3
R51 3.3
J10
PyroBPin
ROLL CONTROL
U8
DRV8871DDA
IN1
IN2
VM
OUT1
OUT2
ILIM
GND
DC_IN1
DC_IN2
R26 30k
C43 22uF
C44 100nF
INDICATION
LED is the LTST-C193XXXX, requires 5mA of forward current
LED_R
LED_G
LED_B
R46 300
R52 300
R55 300
D9 C193KRKT
D10 C193TGKT
D11 C193TBKT
BUZZER
BZ1
Buzzer
R56 1k
SERVOS
PWM1
PWM2
PWM3
PWM4
PWM5
PWM6
PWM7
PWM8
M1 Motor_Servo
M2 Motor_Servo
M3 Motor_Servo
M4 Motor_Servo
M5 Motor_Servo
M6 Motor_Servo
M7 Motor_Servo
M8 Motor_Servo
BREAKOUT
J1
Radio4Pin
RADIO_RX
RADIO_TX
J3
GPS7Pin
GPS_SCL
GPS_SDA
RTK_RX
RTK_TX
RTK_IO
GPIO4Pin
J4
GPIO1
GPIO2
GPIO3
GPIO4
J6
QWIIC I2C
GPS_SDA
GPS_SCL
SPI9Pin
J8
BREAK_SCK
BREAK_MISO
BREAK_MOSI
CS_BREAK1
CS_BREAK2
CS_BREAK3
INT_BREAK1
INT_BREAK2
INT_BREAK3
PowerBPin
J11
OUT1
OUT2
MICROCONTROLLER
U3
STM32H753VITx
VBAT
VDD
VDDA
VSS
VSSA
NRST
BOOT0
VREF+
PH0
PH1
PY1_LED
PY2_LED
PY3_LED
PY4_LED
DC_IN2
DC_IN1
INT_HIG
CS_BMP
PWM1
INT_BMP
PWM2
PWM3
PWM4
LED_R
CS_BREAK2
CS_BREAK1
CS_BREAK3
INT_BREAK1
INT_BREAK2
INT_BREAK3
CS_FLASH
PWM5
PWM6
PWM7
PWM8
VCAP
PY3_CONT
PY3_EN
PY4_EN
PY4_CONT
LOAD
SENS_SCK
SENS_MISO
SENS_MOSI
GPIO2
GPIO1
USB_M
USB_P
SWDIO
SWCLK
INT_IMU_A
INT_IMU_G
CS_HIG
RTK_RX
RTK_TX
RTK_IO
GPS_SCL
GPS_SDA
RADIO_RX
RADIO_TX
LED_G
DATA_SCK
DATA_MISO
DATA_MOSI
CS_IMU_A
CS_IMU_G
BUZZER
GPIO4
GPIO3
BREAK_SCK
BREAK_MISO
BREAK_MOSI
LED_B
PY1_CONT
VBAT_MEASURED
PY2_EN
PY2_CONT
BREAK_MISO
BREAK_MOSI
PY1_EN
R1 10k
C3 20pF
C5 20pF
Y1 C13740
C22 2.2uF
C23 2.2uF
R12 4.7k
R13 4.7k
C28 100nF
C29 100nF
C30 100nF
C31 4.7uF
C32 100nF
C33 100nF
C34 1uF
C35 100nF
C36 100nF
C37 100nF
H1 MountingHole
H2 MountingHole
H3 MountingHole
H4 MountingHole
SW2
SW_Push
C42 100nF
R37 100k
R40 50k
J9
Prog5Pin
C45 100nF
TTB Aerospace, Phillips Exeter Academy
Sheet: /
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