POWER

PWR_FLAG
+3V3
VREG_3V3
+3V3
P54
P42
P40
P41
P55
VIN
VIN
IN   OUT
BYP
EN   GND
U1
C1   C3
4u7 470p
C13
4u7
GND
GND

USB

D1
>100mA
VIN
P48
J1
C15
1u
BOOT0
USB_VBUS
USB_D−
USB_D+
USB_ID
P49
P50
P51
P52
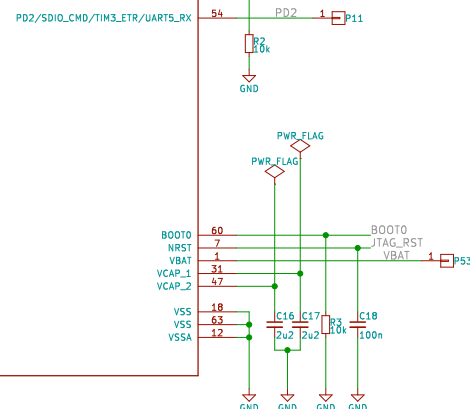VCC
D−
D+
ID
GND
USB_OTG
P24
GND shield
R1
10k
GND   GND

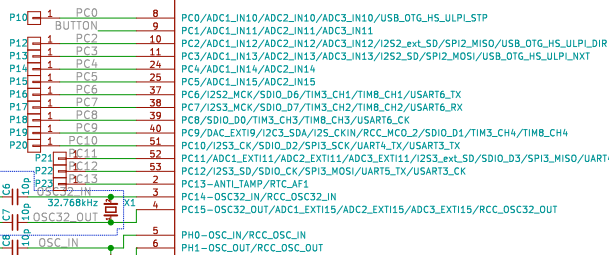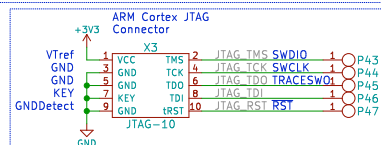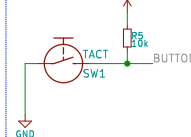By default when plugging in
USB the payload firmware will
be executed, if you short the Jumper
the STM32 will boot into the DfuSe bootloader.

STATUS LED

+3V3
R4
300
LED1_ORA
PA8
GND

BUTTON

+3V3
R5
10k
BUTTON
TACT
SW1
GND

MCU

ARM Cortex JTAG
Connector
+3V3
X3
VTref
GND
GND
KEY
GNDDetect
VCC   TMS
GND   TCK
GND   TDO
KEY   TDI
GND   tRST
JTAG-10
JTAG_TMS SWDIO   P43
JTAG_TCK SWCLK   P44
JTAG_TDO TRACESWO P45
JTAG_TDI   P46
JTAG_RST RST   P47
GND

U2
STM32F415RGT

Optional
32.768kHz X1
OSC32_IN
OSC32_OUT
C6 C7
10p 10p
25MHz
X2
OSC_IN
OSC_OUT
C8 C9
10p 10p

+3V3 PWR_FLAG
600 Ferrite
L1
C2 C4 C5 C10 C11 C12 C14
1u 4u7 10n 100n 100n 100n 10n
GND   GND

PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA8
USB_VBUS
USB_ID
USB_D−
USB_D+
JTAG_TMS
JTAG_TCK
JTAG_TDI

PC0
BUTTON
PC2
PC3
PC4
PC5
PC6
PC7
PC8
PC9
PC10
PC11
PC12
PC13
OSC32_IN
OSC32_OUT

PH0−OSC_IN/RCC_OSC_IN
PH1−OSC_OUT/RCC_OSC_OUT

VDD
VDD
VDD
VDD
VDDA

PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
PB8
PB9
PB10
PB11
PB12
PB13
PB14
PB15

PD2

PWR_FLAG
PWR_FLAG

BOOT0
NRST
VBAT
VCAP_1
VCAP_2

VSS
VSS
VSSA

BOOT0
JTAG_RST
VBAT
P53
C16 C17 R3 C18
2u2 2u2 10k 100n
GND GND GND GND

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