

The-Generic-STM32F103-Pinout-Diagram.pdf

t=0x9b54ee8 [0,0]

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stm32f103 board

arduino boot loader

- https://github.com/rogerclarkmelbourne/Arduino_STM32/wiki/Flashing-Bootloader-for-BluePill-Board

triple usb serial

pill_serial

- https://satoshinm.github.io/blog/171223_stm32serial_triple_usb-to-serial_adapter_using_stm32_bluepill/
- https://github.com/satoshinm/pill_serial

t=0x9b57bb0

Function	Pin and Port
USART3 TX	PB10
USART3 RX	PB11
USART2 TX	PA2
USART2 RX	PA3
USART1 TX	PA9
USART1 RX	PA10

t=0x9b58d78

USART	TX pin	RX pin	special	speed	sensor	linux
3	PB10	PB11		9600	MH-Z19B	/dev/ttyACM1
2	PA2	PA3		9600		
1	PA9	PA10	BOOT=0	9600		

```
dpavlin@nuc:/nuc/stm32/pill_serial$ cat flash.sh
sudo ../stlink/build/Release/st-flash write src/pill_serial.bin 0x08000000
```

lower serial speed to 9600 so we can use slow sensors on it: [serial-speed.diff](#)

bluepill-serial-monster

<https://github.com/r2axz/bluepill-serial-monster>

openocd with raspberry pi

<http://git.rot13.org/?p=openocd-rpi2-stm32;a=blob;f=openocd-rpi.txt>

clones

<https://github.com/thanks4opensource/buck50/issues/2>

<https://github.com/keirf/Greaseweazle/wiki/STM32-Fakes>

```
dpavlin@nuc:/nuc/stm32/Greaseweazle$ wget https://github.com/keirf/Greaseweazle/releases/download
dpavlin@nuc:/nuc/stm32/Greaseweazle$ unzip Greaseweazle-v0.22.zip Greaseweazle-v0.22/alt/Blinky_T
Archive:  Greaseweazle-v0.22.zip
  inflating: Greaseweazle-v0.22/alt/Blinky_Test-v0.22.hex
```

write it to flash using openocd

```
> flash write_image erase /nuc/stm32/Greaseweazle/Greaseweazle-v0.22/alt/Blinky_Test-v0.22.hex 0
auto erase enabled
wrote 5120 bytes from file /nuc/stm32/Greaseweazle/Greaseweazle-v0.22/alt/Blinky_Test-v0.22.hex i
```

serial output is on the programming interface at pins A9/TX and A10/RX: Not via the USB port!

```
pi@pihdm1:/nuc/stm32/buck50 $ microcom -p /dev/ttyUSB1
connected to /dev/ttyUSB1
Escape character: Ctrl-\
Type the escape character to get to the prompt.
```

```
** Blinky
** Blinky Test **
** Keir Fraser <keir.xen@gmail.com>
** https://github.com/keirf/Greaseweazle
Serial = ff48:0670:8967:5655:4740:6706
Flash Size = 128kB
Device ID = 0x0000
Revision = 0x0000
Testing I2C1... OK
Testing I2C2... OK
Testing SPI1... OK
Testing SPI2... OK
Testing TIM1... OK
Testing TIM2... OK
Testing TIM3... OK
Testing TIM4... OK
DMA Test #1... OK
DMA Test #2... OK
DMA Test #3... OK
```

```
DMA Test #4... OK
Testing 64kB Flash... OK
Enable TIM4 IRQ... .OK
Testing 20kB SRAM (endless loop).....
```

After flashing this test, you will not be able to address blue pill using openocd.

To work-around this problem, I switched boot0 jumper, used stm32loader (after pressing reset button) to load alternative binary.