Flashing STM32 using STLink

July 23, 2018

1 Procedure

1. Download the USB bootloader from this link:

   `https://github.com/rogerclarkmelbourne/STM32duino-bootloader/blob/master/binaries/generic_boot20_pc13.bin`

2. Follow the connections in the given table for flashing bootloader:

STM32 Pins	**STLink**
GND	GND
+3.3V	+3.3V
SWDIO	SWDIO
SWCLK	SWCLK

3. Execute the following commands:

```
sudo apt-get remove openocd

unset CXX

mkdir -p ~/sandbox

cd ~/sandbox

mkdir openocd

git clone git://repo.or.cz/openocd.git

cd openocd

sudo apt-get
install make libtool pkg-config autoconf automake texinfo libusb-1.0-0-dev
```

```
./bootstrap

./configure

make

sudo make install

openocd -f /usr/local/share/openocd/scripts/interfa
ce/stlink.cfg -f usr/local/share/openocd/scripts/target/stm32f1x.cfg
```

4. Install telnet using sudo apt-get install telnet
5. Open a new terminal window and then execute the following:

```
telnet localhost 4444

reset halt
```

6. Use the complete directory of the bootloader binary in the following command in which telnet is running:

```
flash write_image erase generic_boot20_pc13.bin 0x08000000

reset run
```

7. Remove STLink now and connect the STM32 using micro USB to the raspberry pi.
8. Check the usb devices connected to the raspberrypi now using dmesg.
9. The device will be shown as Maple Leaf USB device which shows that the bootloader was correctly flashed.