

Programming Logic Machine II using USB<->UART TTL adapter

Software requirements

- Tftp32 (tftp server): <http://tftpd32.jounin.net/>
- Tera Term Pro (for serial communication): <http://tssh2.sourceforge.jp/>

Serial port settings (Setup - Serial Port menu in Tera Term Pro)

- Port: COMx, where x is a number depending on your system
- Baud rate: 115200
- Data: 8 bit
- Parity: none
- Stop: 1 bit
- Flow control: none
- Transmit delay: 0 msec/char, 0 msec/line

PC Ethernet settings

- IP: 192.168.0.1
- Mask: 255.255.255.0
- Gateway: not specified, leave blank
- DNS: not specified, leave blank

Follow this guide to reprogram your Logic Machine II

1. Disconnect LMII from power supply and remove the board from the case
2. Connect serial cable to LMII board and your PC
3. Connect Ethernet cable to the Ethernet port on the board and your PC
4. Start Tera Term Pro and keep the window open
5. Connect power supply to the board
6. When 'Hit Enter to stop autoboot' message appears, press "Enter" key on your keyboard to enter programming mode
7. From Tera Term Pro window, enter this command to completely erase flash memory on your board:

```
nand erase 0x0300000 0xFD00000
```

8. Start Tftp32

9. Place firmware image files into the same directory where Tftp32 is installed, usually:

```
C:\Program Files\Tftpd32\
```

10. Flash kernel:

```
tftp 0x22000000 kernel.img  
nand write 0x22000000 0x0300000 $(filesize)
```

11. Flash data:

```
tftp 0x22000000 data.img  
nand write 0x22000000 0x0600000 $(filesize)
```

12. After the firmware is completely written, enter this command to restart the board:

```
reset
```

13. Wait about 3-5 minutes for the system initialization to complete and you will be able to access your LMII using this IP address:

```
192.168.0.10
```