CMUcam3 Linux Quick Start Guide

This is for advanced users. For more detailed instructions see Documentation.

- Make sure you already have the following installed
    - Make
    - Subversion
    - Openssh

- Download from our Downloads page:
    - Linux ARM-gcc compiler
    - Linux LPC-ISP Installer

- Not as root, install the files into a subdirectory of your home directory, and add to your local PATH

- Download cc3 source
    - Get a zip of the latest stable snapshot from our Downloads page
    - **or** checkout a fresh copy from svn by typing:

        ```
        svn co https://cc3.svn.sourceforge.net/svnroot/cc3/trunk cc3
        ```

- Install gcc
    - bunzip2 arm-2006q3-27-arm-none-eabi-i686-pc-linux-gnu.tar.bz2
    - tar xvf arm-2006q3-27-arm-none-eabi-i686-pc-linux-gnu.tar
    - Add: /arm-2006q3/bin directory to your path

- Install LPC-ISP
    - unzip lpc21isp_unix.zip
    - cd lpc21isp_unix
    - make
    - Add the directory with lpc21isp to your path

- Open up a new shell
    - Go to cc3
    - Type Make

- Startup in programming mode
    - Hold in push button while turning on power to statup in programming mode

- Load compiled hex file
    - cd to cc3/projects/cmucam2/
    - Flash board with cmucam2_lpc2106-cmucam3.hex
    - Assuming your COM port is /dev/ttyS0 type:

        ```
        ./lpc21isp cmucam2_lpc2106-cmucam3.hex /dev/ttyS0 115200 14746
        ```

- Open up a terminal program
    - Power Cycle Board
    - A Green Power LED should turn on
    - If the code is running correctly, the red LED will turn off and the blue and yellow LEDs will dimly illuminate
    - Make sure it prints a startup message

- Open Minicom or some other terminal program
    - Configure Minicom as described on our Minicom page.
    - Restart the board and wait 5 seconds
    - You should see the following:

        ```
        CMUcam2 v1.00 c6
        :
        ```

    - Try typing "gv" followed by enter to see if two-way serial communication is working