Setup raspberry Pi

**1. Install g++-4.8 (C++ compiler for Raspberry Pi)**

*1.1. Please check if g++-4.8 is available on your Raspberry Pi. This can be quickly tested by typing*

*g++-4.8*

*in the terminal screen. . In case g++-4.8 is installed, you’ll receive an error message since no input files were specified. This message can be ignored, as you did not plan to input anything just yet. If it’s not installed you’ll get:*

*–bash: g++-4.8: command not found*

*as response of linux, you’re pretty certain it’s not installed. Please follow the steps 1.2 and on first (Update g++.docx is the dedicated document for this issue).*

*1.2. How to install g++-4.8*

*Installing is simple, as is usually with the apt-get command. Type:*

*sudo apt-get install g++-4.8*

*1.3. Confirm installation*

*At some point during the installation process, a ‘y’ followed by a enter will need to be pressed in order to confirm installation of g++-4.8. The Pi will clearly ask for your input in the terminal at this point.*

**2. Install WiringPi**

*Ckeck if get-core is installed:*

*sudo apt-get install git-core*

*To obtain WiringPi using GIT:*

*git clone git://git.drogon.net/wiringPi*

*If you have already used the clone operation for the first time, then*

*cd wiringPi*

*git pull origin*

*Will fetch an updated version then you can re-run the build script below.*

*To build/install there is a new simplified script:*

*cd wiringPi*

*./build*

*The new build script will compile and install it all for you – it does use the sudo command at one point, so you may wish to inspect the script before running it.*

**3. Use wiringPi**

*When compiling add –lwiringPiDev*

*g++-4.8 <file to compile> -lwiringPiDev -std=c++11 –o <file to output>*

*For functions see* [*http://wiringpi.com/reference/*](http://wiringpi.com/reference/)

**4. Open serial gate**

*Sudo nano /etc/inittab*

*This file has the command to enable the login prompt and this needs to be disabled. Edit the file and move to the end of the file. You will see a line similar to*

*T0:23:respawn:/sbin/getty -L ttyAMA0 115200 vt100*

*Disable it by adding a # character to the beginning. Save the file.*

*#T0:23:respawn:/sbin/getty -L ttyAMA0 115200 vt100*

*Next step:*

*Sudo nano /boot/cmdline.txt*

*The contents of the file look like this*

*dwc\_otg.lpm\_enable=0 console=ttyAMA0,115200 kgdboc=ttyAMA0,115200 console=tty1 root=/dev/mmcblk0p2 rootfstype=ext4 elevator=deadline rootwait*

*Remove all references to ttyAMA0 (which is the name of the serial port). The file will now look like this*

*dwc\_otg.lpm\_enable=0 console=tty1 root=/dev/mmcblk0p2 rootfstype=ext4 elevator=deadline rootwait*