

# Introduction to FPGA development

## Task 0: Installation

Install the following software according to your computer OS. This should **be done before the workshop** as this may take some time.

Tools required:

1. A computer running either windows 10 or Linux Ubuntu 20 or later. There is no support for OSX but you can run a Ubuntu VM (in Parallels) if you want.
2. A MAX1000 development board (Makerspace has a few of these you can borrow)



3. Install Intel Quartus 22.1 (From [www.intel.com](http://www.intel.com))

Windows	Linux
<a href="https://www.intel.com/content/www/us/en/software-kit/757262/intel-quartus-prime-lite-edition-design-software-version-22-1-for-windows.html?">https://www.intel.com/content/www/us/en/software-kit/757262/intel-quartus-prime-lite-edition-design-software-version-22-1-for-windows.html?</a>	<a href="https://www.intel.com/content/www/us/en/software-kit/757261/intel-quartus-prime-lite-edition-design-software-version-22-1-for-linux.html">https://www.intel.com/content/www/us/en/software-kit/757261/intel-quartus-prime-lite-edition-design-software-version-22-1-for-linux.html</a>

4. Install Arrow USB programming 2.5 libraries (From <https://shop.trenz-electronic.de/en/>)

Windows	Linux
<a href="https://shop.trenz-electronic.de/trenzdownloads/Trenz_Electronic/Software/Drivers/Arrow_USB_Programmer/Arrow_USB_Programmer_2.5/Arrow_USB_Programmer_2.5_win64.zip">https://shop.trenz-electronic.de/trenzdownloads/Trenz_Electronic/Software/Drivers/Arrow_USB_Programmer/Arrow_USB_Programmer_2.5/Arrow_USB_Programmer_2.5_win64.zip</a>	<a href="https://shop.trenz-electronic.de/trenzdownloads/Trenz_Electronic/Software/Drivers/Arrow_USB_Programmer/Arrow_USB_Programmer_2.5/Arrow_USB_Programmer_2.5.1_linux64.zip">https://shop.trenz-electronic.de/trenzdownloads/Trenz_Electronic/Software/Drivers/Arrow_USB_Programmer/Arrow_USB_Programmer_2.5/Arrow_USB_Programmer_2.5.1_linux64.zip</a>

5. A terminal program e.g. putty, minicom etc...

Windows (Putty)	Linux
<a href="https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html">https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html</a>	<code>sudo apt install minicom</code>