Building a PC – 01.10.19

* Don’t miss labs.
* When inserting a CPU, make sure the lever placement is correct. Not doing this may make the computer behave erratically.
* Graphics Card / Network Card / Sound Card / etc – Daughter Board
* DIM Switches / Jumpers – Additional functionality, or customisation
* SATA / BUS – Data pipe.
* Computer parts are surface mounted, soldered and glued.
* Power Supply: AC – DC current.
* Yellow 12, Red 5, Orange 3.3, Black Ground – Voltage colours in a PSU
* Peripheral controllers, visual controllers, etc. Used to be separate chips. They are now a singular peripherals control chip.
* There are several different types of computer chitecture:
* - Harvard Architecture – Physically separate storage and signal paths for data and instructions.
* - Von Neumann Architecture – Used in modern computers – *See previous notes for definition*
* Conflicting conventions – Most significant byte first / Least significant byte first
* *Complex example of loading a simple program, read online notes*
* In more modern computers, there are lots for Accumulators
* Program counter stores place in the program
* Index register, used for “for” loops
* Stack processor = allows you to remember your task, as you jump into a subtask. Allowing for pulling and pushing information highly efficiently.
* “Every peripheral act as a region of memory” – I/O
* Arithmetic Logic Unit = And gates, mathematical operations, etc
* Control unit organises the work of the rest of the processor
* Memory, slow storage of data. It requires “Loading” and “Unloading” to cache memory on the processor to perform tasks.
* LDAA – Loads accumulator A – Called OPCode
* *Hexadecimal refer to Google definition*
* Computers use hexadecimal for storing memory locations.