

Template Week 3 – Hardware

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Assignment 3.1: Examine your phone

What processor is in your phone?

Apple A15 Bionic.

To which architecture family does this processor belong? In other words, which Instruction Set Architecture (ISA) is used?

ARM64 (ARM)

How much RAM is in it?

6 GB RAM.

How much storage does your phone have?

128 GB

What operating system is running on your phone?

iOS.

Approximately how many applications do you have installed?

60

Which application do you use the most?

Tiktok

Can your phone be charged with what type of plug?

Lightning-kabel

Which I/O ports can you visually see on your phone?

Lightning-poort en het SIM-slot

Assignment 3.2: Examine your laptop

What processor is in your laptop?

AMD Ryzen 5-processor

To which architecture family does this processor belong? In other words, which Instruction Set Architecture (ISA) is used?

x86-64 architectuur

How much RAM is in it?

16GB

How much storage does your laptop have?

256 GB

Which operating system is running on your laptop?

Windows

Approximately how many applications do you have installed?

35

Which application do you use the most?

Google Chrome

Can your laptop be charged with what type of plug?

DC-adapter

Which I/O ports can you visually see on your laptop?

USB-A, USB-C, HDMI en een koptelefoonaansluiting

Assignment 3.3: Power to the laptop

What is the input voltage?

100-240 volt

What is the output voltage?

19 Volt

How many watts can your power adapter deliver?

45watt

Is the input voltage AC or DC?

AC

Is the output voltage AC or DC?

DC

AC/DC what is that?

AC is wisselstroom en **DC** is gelijkstroom.

If you reverse the polarity of the output voltage, is that bad for your laptop?

Ja

You forgot your power adapter, your laptop normally needs 15 watts. You will be loaned a power adapter that can deliver 50 watts. Voltage, polarity, etc. are all the same compared to the original power adapter. You can connect the borrowed power adapter to your laptop. What will happen? Also explain why you think that.

Een adapter van **50 watt** is **veilig**, omdat de laptop alleen het vermogen gebruikt dat hij nodig heeft.

Assignment 3.4: Build your dream PC

Screenshots PC configuration + motivation:

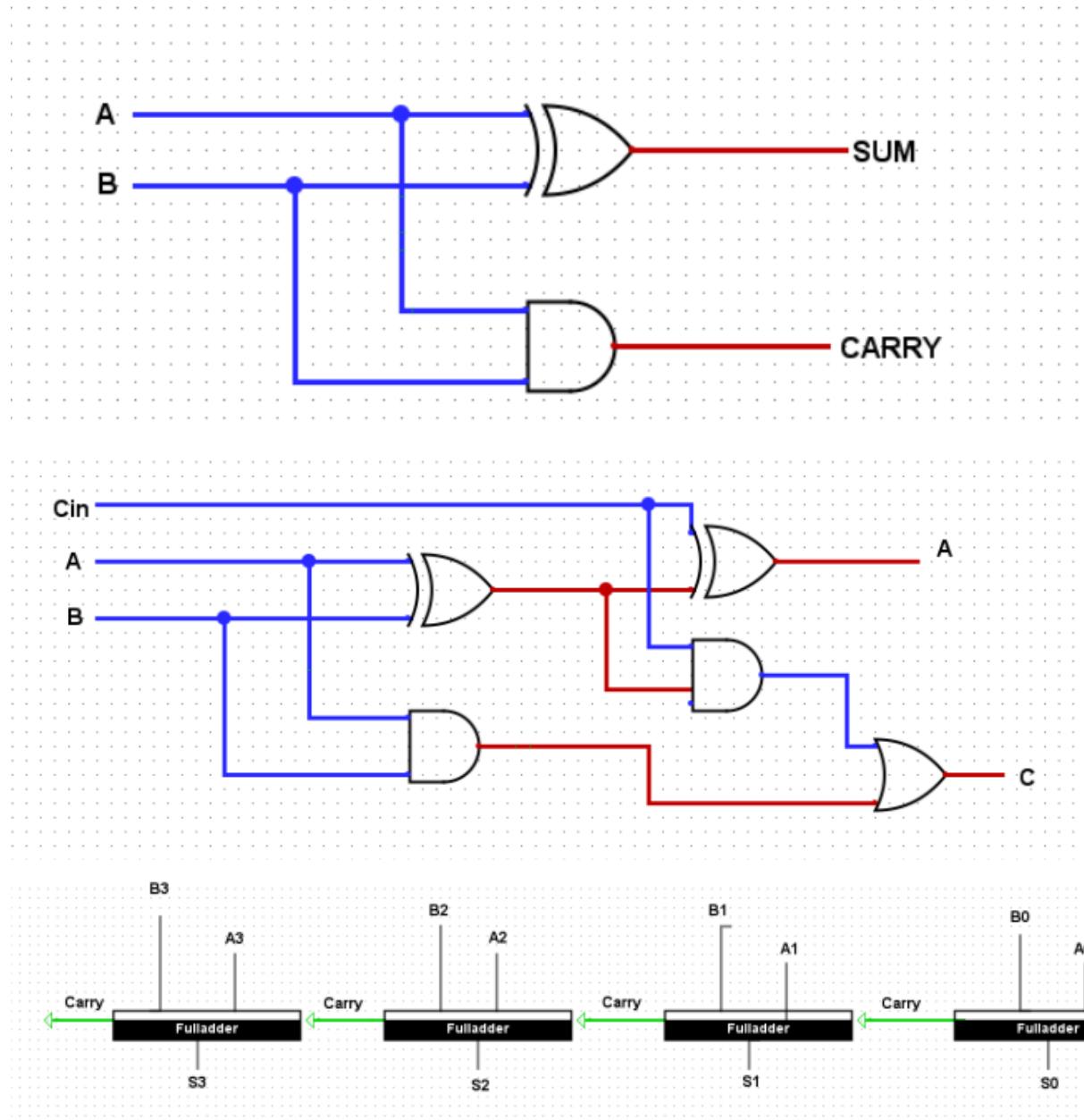
Koelsysteem		Connectiviteit & Upgradebaarheid	
Behuizing	DeepCool CG530 4F WH (4x DeepCool ARGB ventilator)	Moederbord	ASUS B850 MAX GAMING WIFI W
Processorkoeler	DeepCool LE360 WH V2	Voeding	750W Chieftec Vega M Gold White
Rekenkracht		Werkgeheugen & opslag	
Processor	AMD Ryzen 5 7500X3D - 6 cores - 4,5GHz	Werkgeheugen	32GB DDR5 - Kingston Fury Beast RGB White
Videokaart	Nvidia GeForce RTX 5070 12GB - ASUS Prime White	Opslag	1TB - 6.000MB/s - PCIe 4.0 - Kingston NV3

Het is een gaming pc, Ik speel vaak spellen waarbij een goede processor en video kaart voor nodig is om de spellen optimaal mee te kunnen runnen.

Assignment 3.5: Adders

Complete the **half adder**, **full adder** and **4-bit adder** assignment as described in the PowerPoint slides of week 3 in Logisim. Save the chip design and also export three PNG pictures of the separate finished designs. See the PowerPoint slides of week 3.

Paste the three exported PNG pictures in here.



Ready? Save this file and export it as a pdf file with the name: [week3.pdf](#)