

A

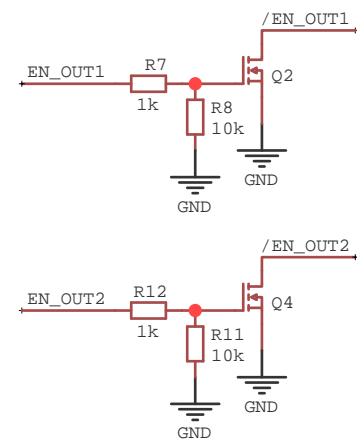
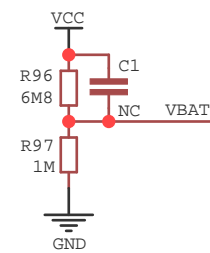
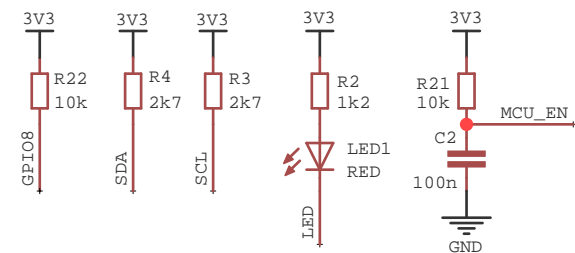
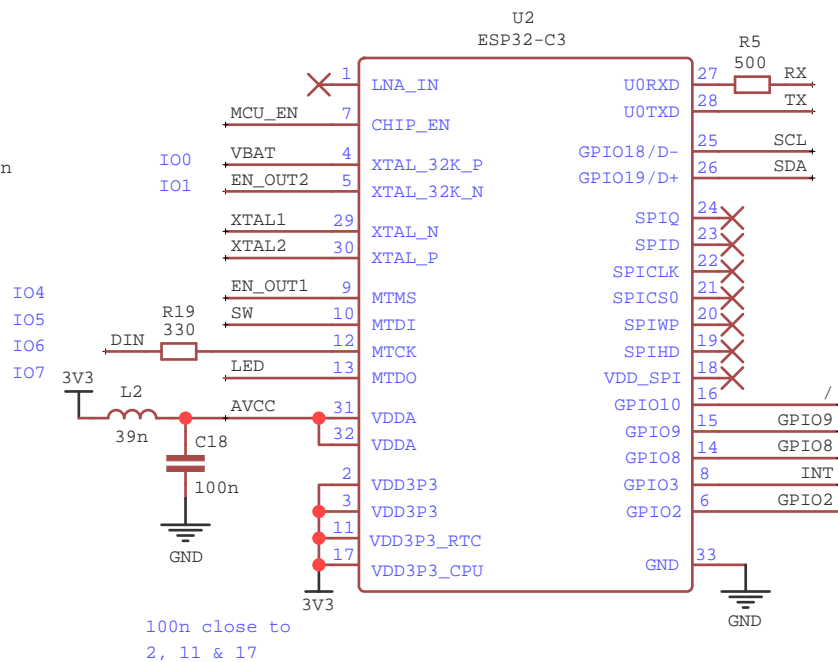
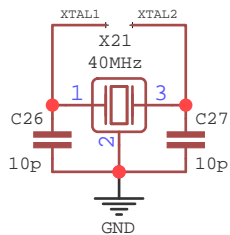
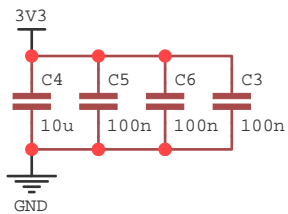
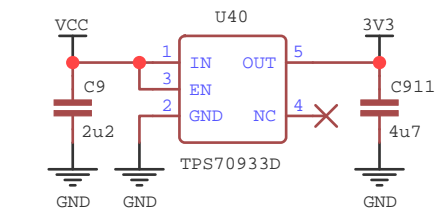
B

C

A

B

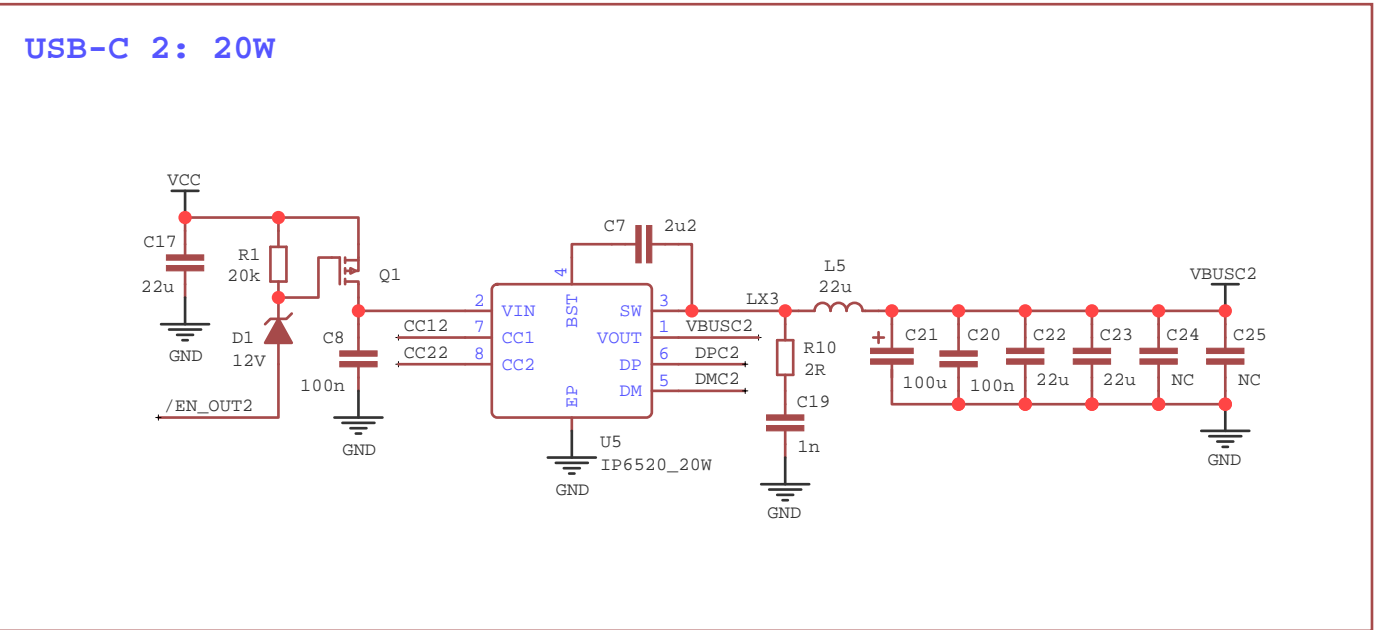
C



R1	R2	Vmax	I
6S	1M	150k	3.29V
7S	1M	122k	3.2V

TITLE: MCU		REV: 1.0
Company: HarryOnBreadboard		Sheet: 1/1
Date: 2022-10-02		Drawn By: Antoine

2 USB-A: 24W



CELL	Capacity	Vmin	Vmax
	3450mAh	3.3V	4.2V
	12.4Wh		
BAT	Capacity	Vmin	Vmax
4S	49.6Wh	13.2V	16.8V
5S	62Wh	16.5V	21V
6S	74.4Wh	19.8V	25.2V

USB-C 1: 100W OUT / 65W IN

The schematic shows a USB-C port configuration for 100W output and 65W input. Key components include:

- ICs:** U1 (IP2368), U3 (TPD4E05U06), U4 (TPD4E05U06).
- Transistors:** Q1-Q10.
- Diodes:** D1-D8.
- Resistors:** R1-R27.
- Capacitors:** CP1-CP15.
- Inductors:** L1-L3.
- LEDs:** LED1.

R2	Capacity (mAh)
4.2k	3400
6.2k	5000
12.4k	10000
18.7k	15000
24.9k	20000
30.9k	25000

$$C = 0.8 * R \quad R(k \Omega)$$

R4	Pwr
5k	20W
7k5	30W
10k	40W
11k2	45W
12k5	50W
15k	60W
>25k	100W

$$Pwr \quad P_{ccin} = 4 * R \quad R(k \Omega)$$

$$Cur \quad I_{chrg} = 0.2 * R \quad R(k \Omega)$$

R3	Li
7k5	4.15V
10k	4.20V
15k	4.30V

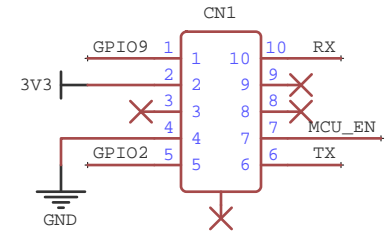
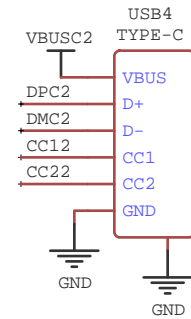
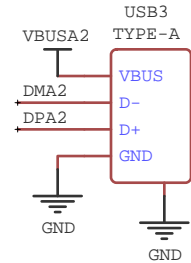
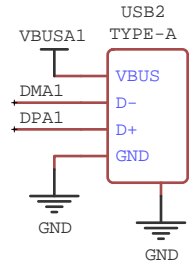
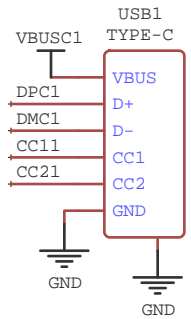
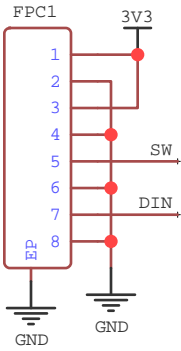
$$Li \quad V_{max} = 4 + 0.02 * R \quad R(k \Omega)$$

$$Ph \quad V_{max} = 3 + 0.01 * R \quad R(k \Omega)$$

BAT	R1
2S	6k2
3S	9k1
4S	13k
5S	18k
6S	27k

TITLE: Power		REV: 1.0
	Company: HarryOnBreadboard	Sheet: 1/1
	Date: 2022-10-02 Drawn By: Antoine	

A



TITLE: Connectors		REV: 1.0
	Company: HarryOnBreadboard	Sheet: 1/1
	Date: 2022-10-05	Drawn By: Antoine

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