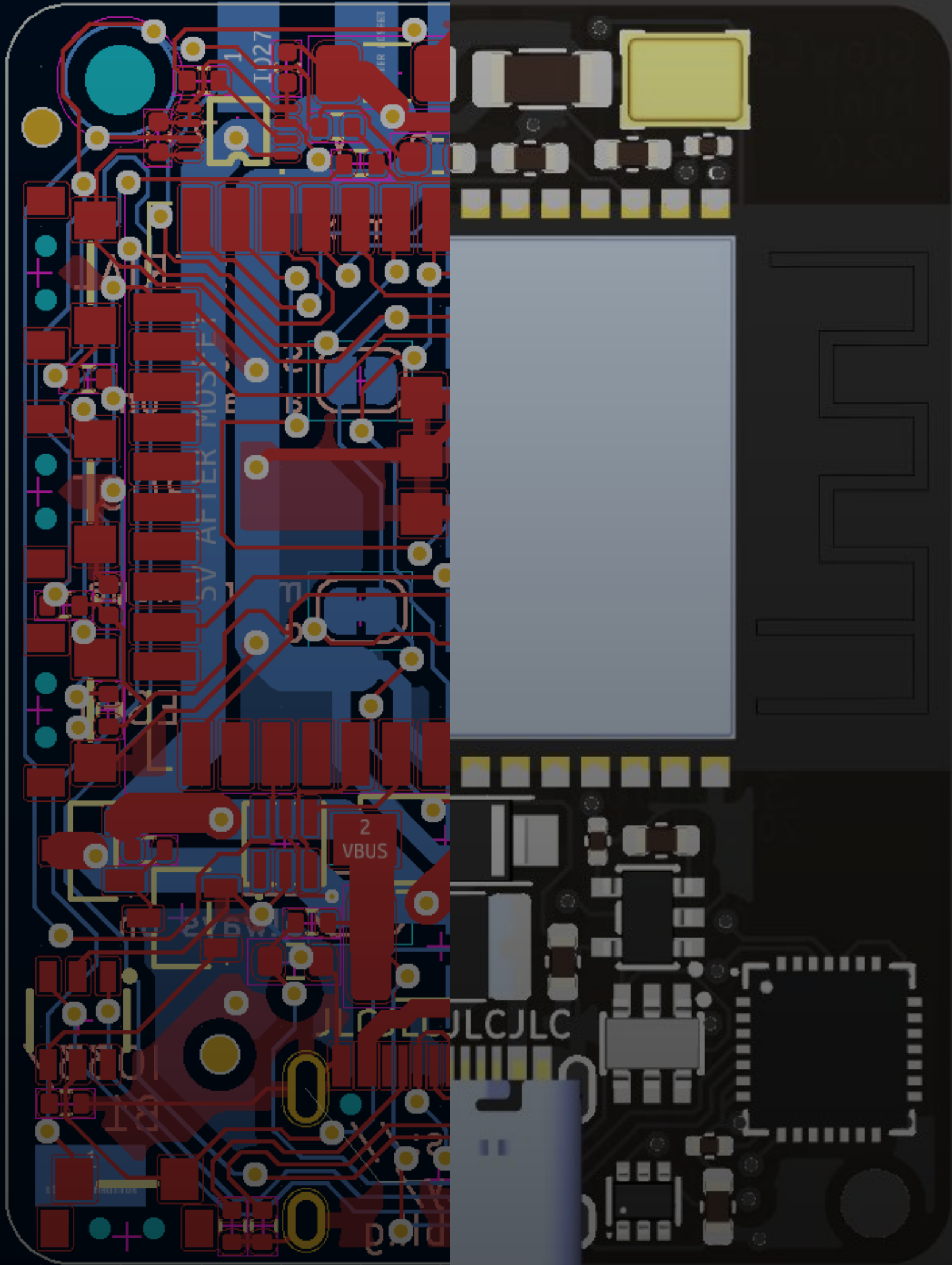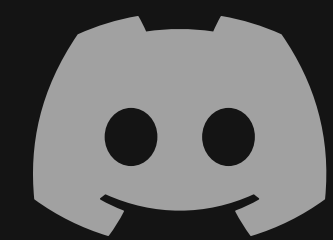# Learn PCB design with KiCad

Beginners workshop
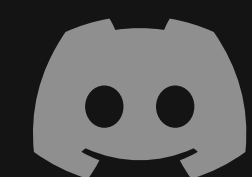
Join us on Discord

discord.glowingkitty.com

- share projects you are working on

- get help, inspiration & feedback
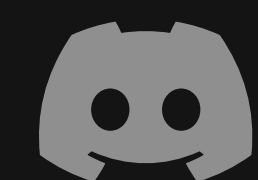
- meet other LED enthusiasts

What do we learn today?

- what is a PCB used for?

- why design your own PCB?

- is it difficult?

- (practise) how to design a super simple PCB?

- (practise) how to order a PCB online?

- (practise) how to design a more complex PCB?
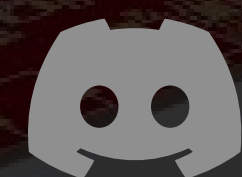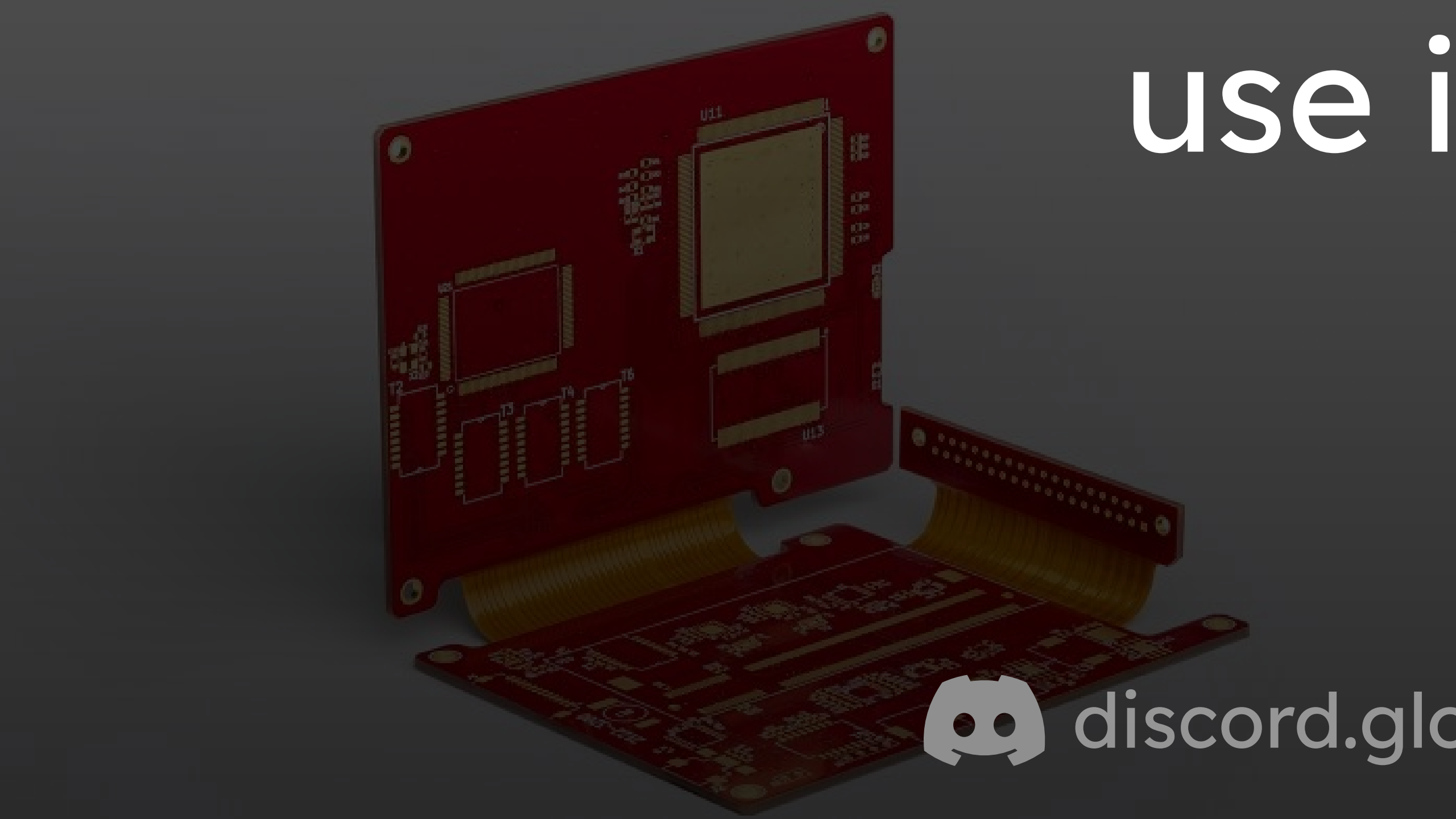
What is a PCB used for?

Whatever you want to use it for.

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Why design your own PCB?

WITHOUT custom PCBs:

- projects are limited in terms of their shape, materials & components you can use

- get easily frustrating to solder together

- more expensive

WITH custom PCBs:

- thousands of components to choose from

- design in whatever shape you like

- FR4, Aluminum, flexible PCB - your choice

- have fun by combining multiple PCBs, materials and thicknesses

- possibilities are endless!

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Is it difficult?

Simple PCBs:

simple to design

More complex PCB:

not as complicated as you think, thanks to

open source hardware + datasheets
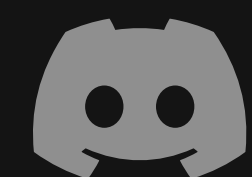
Let's build a super simple PCB!

Let's build a super simple PCB!

- install KiCad: **kicad.org/download**

- visit **pcb-workshop.glowingkitty.com** & git clone repo (or download)

Let's make a schematic

Let's make a PCB layout

Let's make a custom symbol & footprint

3D preview

Export (& useful plugins)

Ordering a PCB

Let's make a more complex PCB!

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