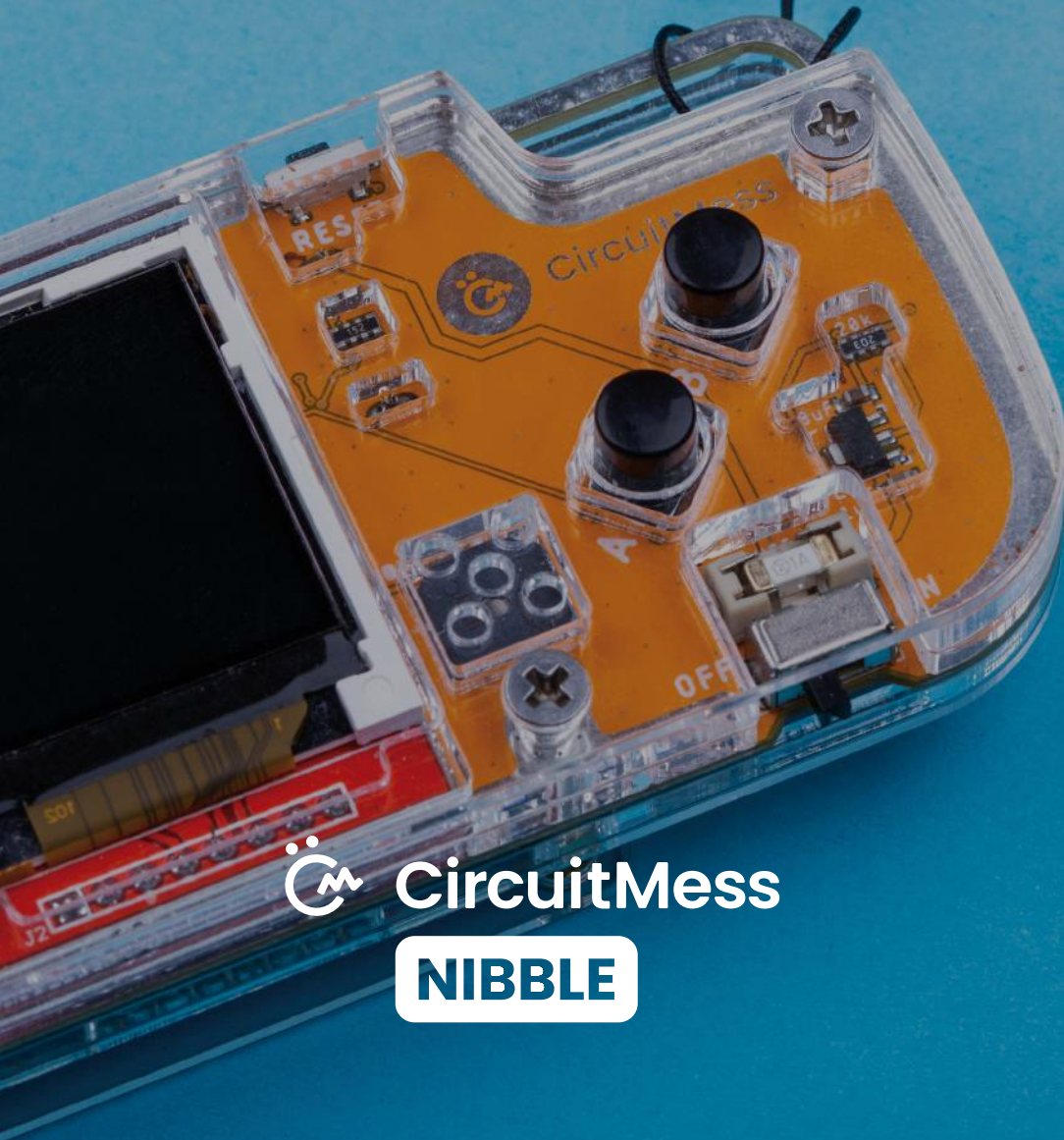


Creator's booklet



CircuitMess

NIBBLE

Meet Nibble

Nibble is a DIY retro game console that will teach you about electronics and coding in a fun and exciting way



HOW IT WORKS?



1 Assemble your game console



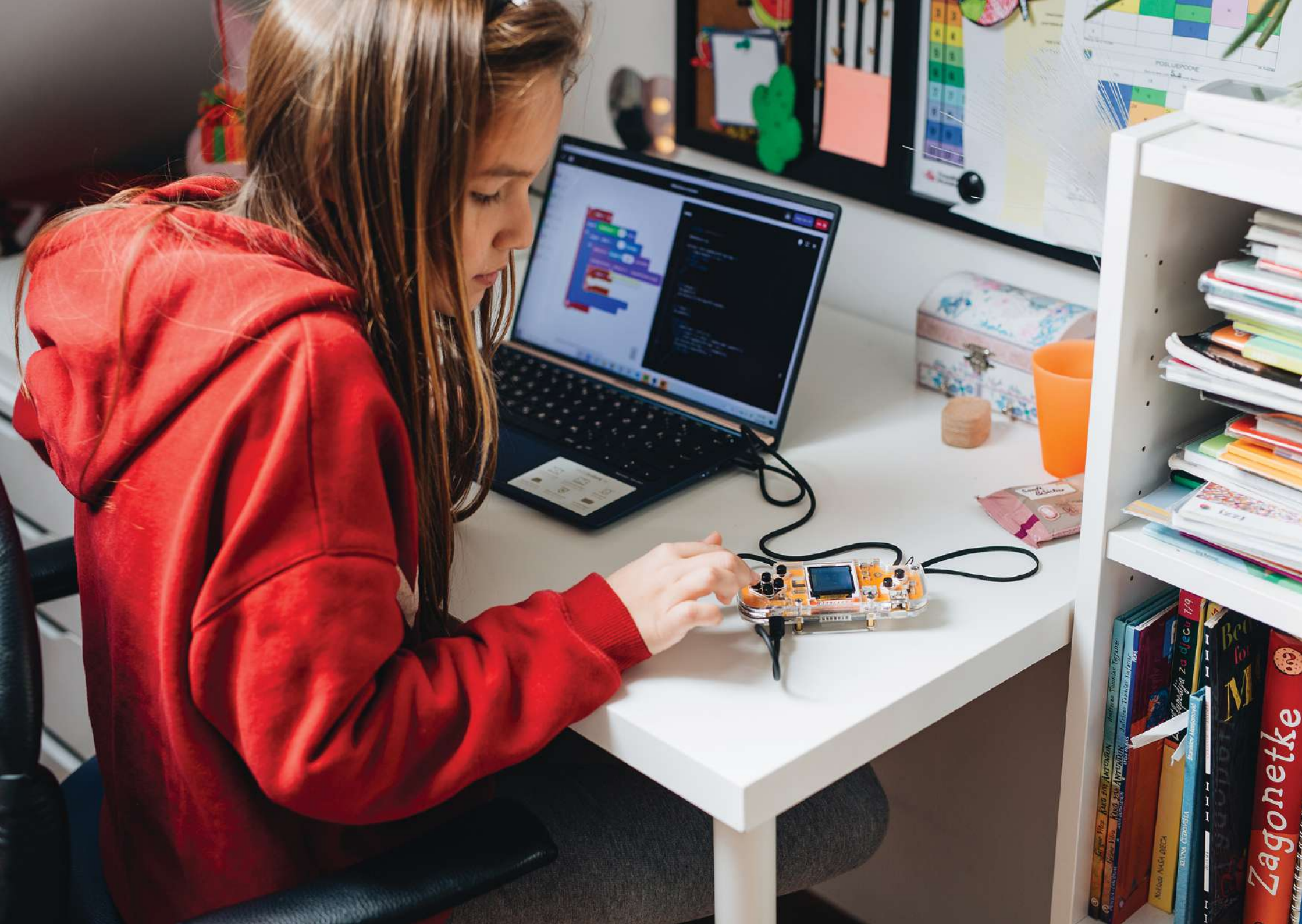
2 Insert batteries



3 Play retro games



4 Code your very own games



What will you learn?



How to solder



How game consoles work



CircuitBlocks, C++ and Python coding



The basics of game graphics



How to code a microcomputer



How to make your own games



The history of video games

Pong™ is considered the first commercially successful video game, and it was released in

1972

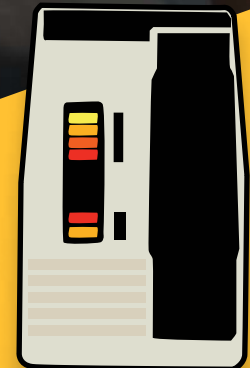


Space Invaders™ is one of the first shooting games ever made. It is considered an all-time classic and has grossed

\$3.8 billion

Mattel Auto race™ was the first portable game console ever made, and it was released in

1977



What is CircuitMess?



CircuitMess started in 2016 when Albert (our CEO) was 17 years old.

Albert loved tinkering with electronics and one of his first projects was a DIY game console.

People really liked the idea so he decided to launch it on **Kickstarter** where it raised \$100,745!

After that, **CircuitMess** was born.

We are a small and fast-growing team of tech lovers who wish to share our love of creating new technology with the rest of the world!

Behind the name

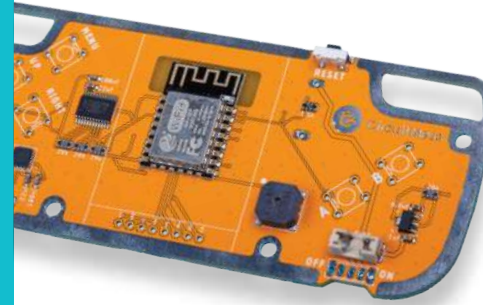
“Circuit” is a reference to electronic circuits. “Mess” is what best describes our workplace. Combine the two and you get CircuitMess!

You can do it!



All of our kits are designed, manufactured, and packed in Croatia!

Our mission



Everybody knows how important technology is, but less than 1% of the population knows **HOW TO MAKE** new technology.













We're here to change that!

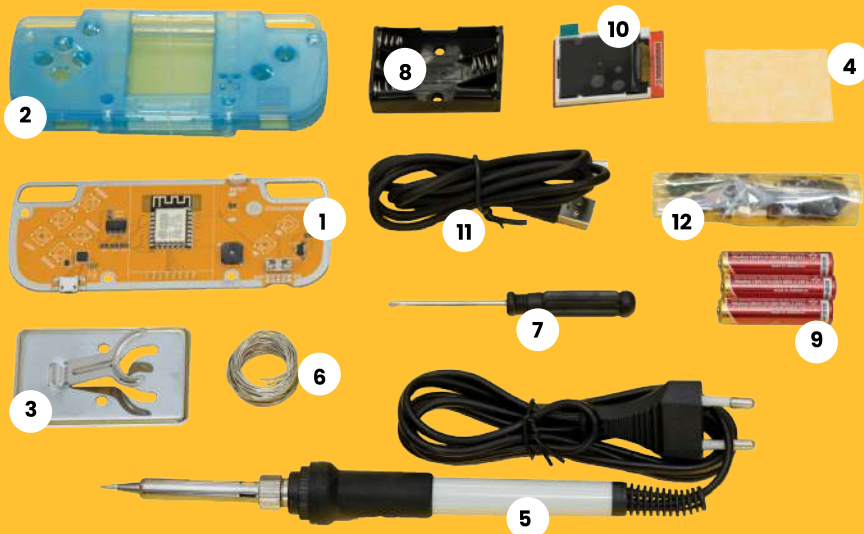
With our kits, we want to inspire people to be **CREATORS**, instead of just consumers.



What's inside the box?

In the Nibble kit, you will get all the components & tools necessary to make your very own game console!

- 1  Main circuit board
- 2  Acrylic casing
- 3  Metal soldering iron stand
- 4  Sponge
- 5  Soldering iron
- 6  Solder wire
- 7  Cross screwdriver
- 8  Battery holder
- 9  AAA alkaline batteries
- 10  LCD display
- 11  Micro USB cable
- 12  Bag with small components



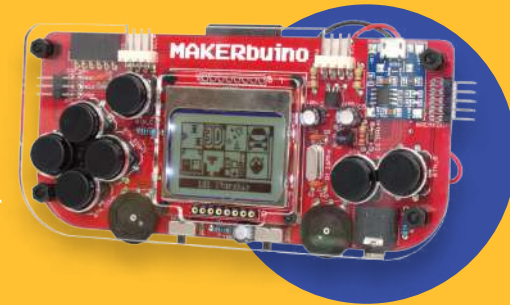
The story behind Nibble



Nibble is a new and improved version of **MAKERbuino** – a game console we created in 2017.

MAKERbuino was sold to over **12,000 customers** around the world!

We have collected their feedback and designed **Nibble** – a worthy successor to our most popular product that is even more educational & fun to use.



Why "Nibble"?

A **byte** is a unit of digital information that consists of eight bits. In computing, a **nibble** is a data type that equals a half of byte (four bits). **Nibble**, being slightly smaller than **MAKERbuino**, got its geeky name after this reference.



Liquid-crystal displays

Displays, also called **monitors**, are the primary **output devices** for most electronic devices we use daily. Every display forms images from tiny dots called pixels that are arranged in a rectangular shape.



There are various types of displays. The one used on Nibble is called the **LCD display**.

- LCD stands for liquid crystal display
- The first LCD was built in 1964

It works on the basis of current, which is applied to the crystal layer inside the display. This method is used to change the color of individual pixels on the screen.

Nibble's LCD has a resolution of **128x128** pixels and every pixel can show **260,000** different colors.



Your Nibble can be coded in CircuitBlocks

After you assemble your game console (go you, you maker!), it is time to take things to a new level!



Don't worry; you can first play a few celebratory rounds of Space Invaderz. You deserved it.

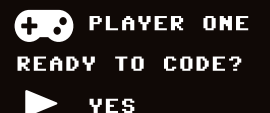
A custom-made coding app

We made it fun and easy for everyone to get into physical computing using **CircuitBlocks**.



CircuitBlocks is a graphical coding interface with a Scratch-like interface where you can connect logic blocks to generate code.

Need a bigger coding challenge? No worries, you can switch to coding directly in C!



Safety first!

Before you start with the assembly, pay attention to the following safety measures:

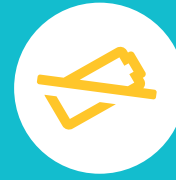
1 Using products provided in this tools kit is **not recommended for children under the age of 11.**

Keep this tools pack away from young children! This set contains components that are dangerous for children under the age of 3.

3 If you are a minor, use this product with the help of an adult.

Soldering iron gets hot!

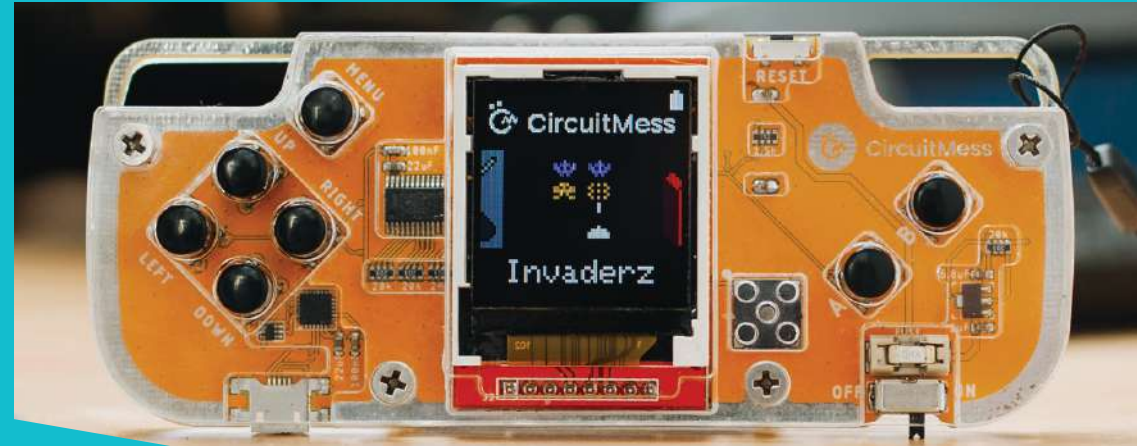
Use it with extra caution and keep away from small children and flammable materials!



Be careful with the batteries.

Do not scratch, disassemble, damage, or heat the included batteries!

The batteries provided in your Nibble DIY kit are **not rechargeable**. After the provided batteries are discharged, they need to be disposed of properly! Do not combine full with empty batteries!



CircuitMess Nibble is a fun introduction to the world of real electronics, but **it is not a toy for toddlers!**

Strictly follow all the instructions you received in this kit and those found on our online pages so that no one gets hurt.

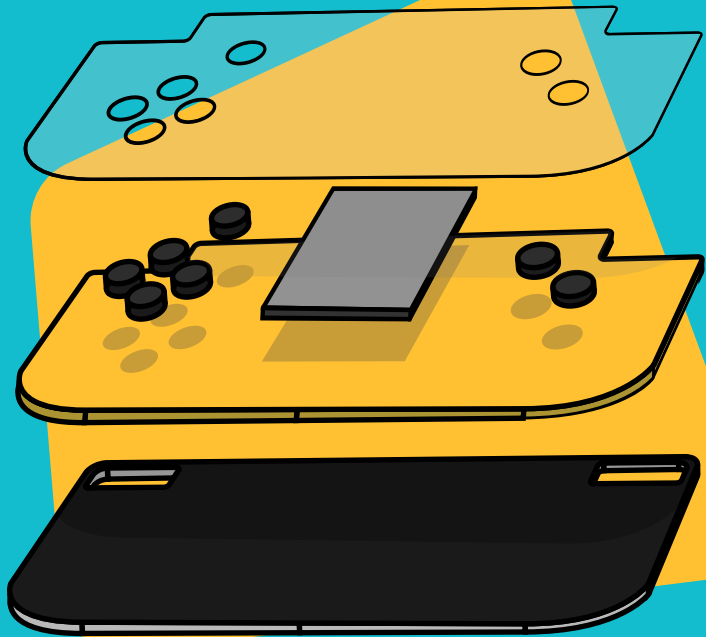
If you have never used a soldering iron or a screwdriver, **carefully follow the assembly instructions** on our website and, if necessary, ask someone more experienced or older than you to help you.

If you are having problems with your kit, contact our customer support via email at contact@circuitmess.com

Happy soldering!

To build your Nibble, go to:

 circuitmess.com/build 



 **CircuitMess**

NIBBLE



 **CircuitMess**

