

Creator's booklet



CircuitMess

CHATTER

Meet Chatter

Chatter is a DIY encrypted wireless communicator. It comes in a pair and it is a free, private, security-first texting device.



HOW DOES IT WORK?



1 Assemble your Chatters



2 Insert batteries



3 Text for free & play games



4 Code your own custom apps

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!



CircuitMess



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 will you learn?



How to assemble
your very own
private texting
device



How LoRa
works



What digital privacy
means in today's world
and how to digitally
communicate without
using the internet



How Chatter
encrypts/decrypts
messages



How Chatter
pairs with
other
Chatters

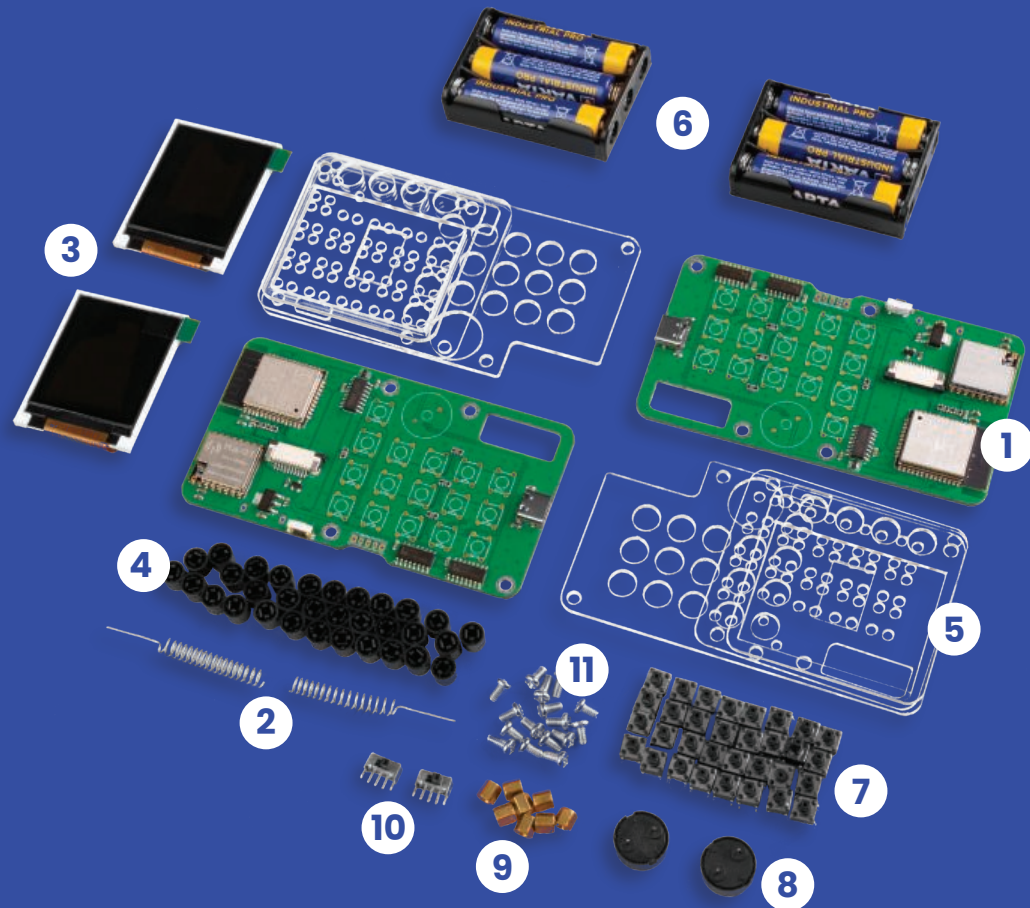


How to code and
load custom apps
onto your Chatter



What's inside the box?

In the Chatter kit, you will get all the components & tools necessary to make two Chatter devices



- | | | | | | |
|---|--|--|----|--|-----------------|
| 1 | | Circuit board with a built in communication module | 7 | | Pushbuttons |
| 2 | | Antenna | 8 | | Piezo buzzer |
| 3 | | Display board | 9 | | Brass standoffs |
| 4 | | Button caps | 10 | | On-Off switches |
| 5 | | Acrylic casing | 11 | | Metal bolts |
| 6 | | Battery holders with batteries | | | |

What is LoRa® technology?

LoRa (long range) is a shortened term used to describe low-power wide-area network modulation technique used for transmitting radio signals.



10km

Low-power means that LoRa powered devices have low power consumption.

Wide-area represents physical range, which is up to 10 km in perfect conditions.

What's the difference between WiFi and LoRa?

WiFi is used to connect billions of professional and personal devices across the world

LoRa is a very unique & smart technology - it is used for smart homes and buildings, smart agriculture, home security and access control, smart cities and many more.

WiFi consumes much more energy compared to LoRa, and provides greater data transmission speeds, but has a much shorter range compared to LoRa. In other words, WiFi transfers a lot of data over a short range and uses a lot of power.

LoRa consumes very little power and is great for transferring small amounts of data (such as text messages) over a very long range.

How does LoRa work?

Radio signal is transmitted using chirped, multi-symbol format to encode information. It works by encoding information on radio waves using chirp pulses.



Sounds complicated?

Dolphins and bats have already figured it out - they communicate in a similar way!

How did the world go wireless?

– A brief timeline



1888

Heinrich Hertz experimentally proves the existence of radio waves, which can be used to carry signals in wireless communication.

1897

Guglielmo Marconi successfully demonstrates wireless communication with his invention of wireless telegraphy.



1900 – 1990

Lots of research and development is being done in the field of wireless technology for military purposes. At the same time, wireless communication is also expanding into a commercial sphere, in a form of Radio and TV broadcasting.



The 1990s

Wireless revolution takes place! We're talking cellular networks, computer networks Bluetooth, Wi-fi...What a time to be alive :)

2022

CircuitMess launches **Chatter**. Now you can actually assemble and code your own wireless communicator in a fun and simple way!



Chatter uses low-power wide-area network technology (LoRa) to send text messages, emojis, memes, and GIFs.



Your communication through Chatter is super-secure

The messages you send to other Chatter devices are encrypted and are not passing through an internet service provider. You can share as many secrets as you want with your friends ;)



Safety first!

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

1



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

Keep this product away from young children!

This product contains components that are dangerous for children under the age of 3.



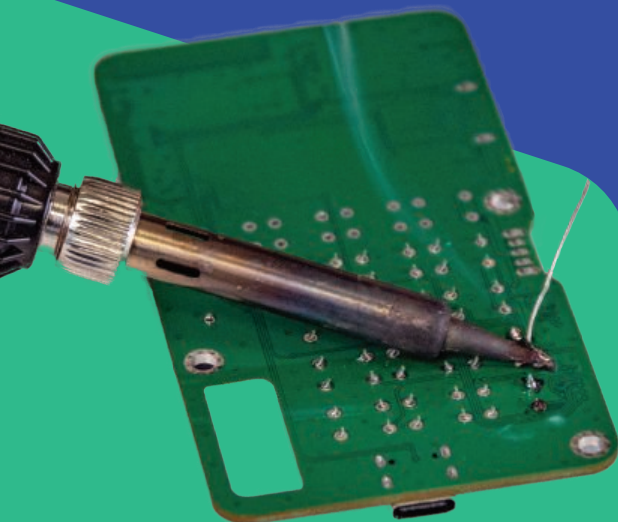
3



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 it away from young children and flammable materials!



Be careful with the batteries!

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

The batteries provided in your Chatter 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 Chatter 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.

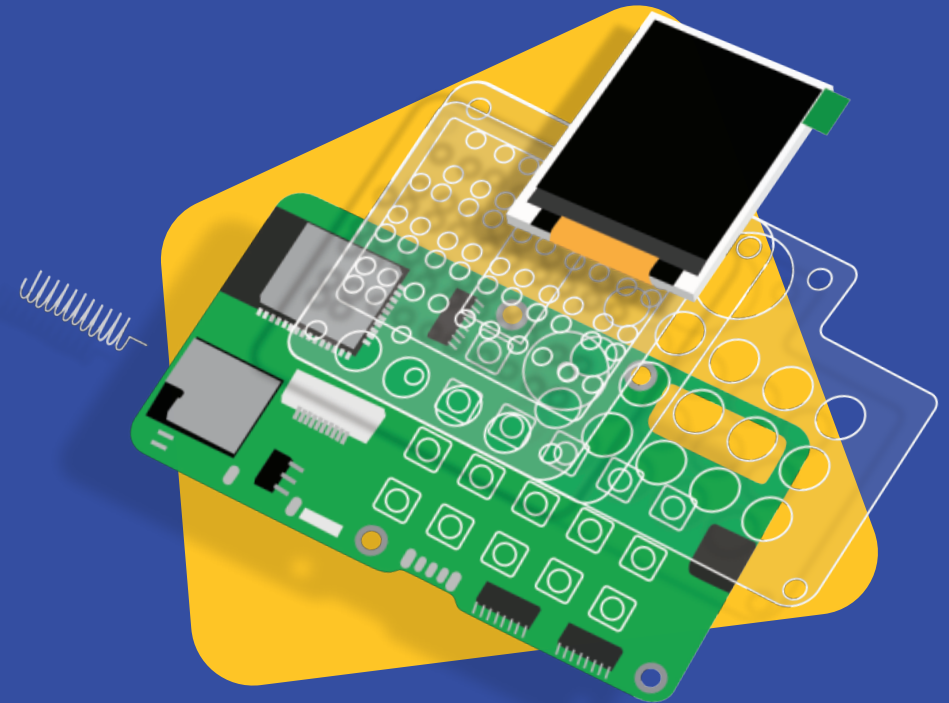
If you have never used a soldering iron or a screwdriver before, **carefully follow the assembly instructions** on our website and, if necessary, ask someone more experienced or older to help you.

If you are having problems with your kit, contact our customer support via email at **contact@[circuitemess.com](mailto:contact@circuitemess.com)**

Happy soldering!

To build your Chatter, go to:

 circuitmess.com/build 



Scan to
access the
build guide!

 **CircuitMess**
CHATTER



 CircuitMess

