KOKO Game Console Manual

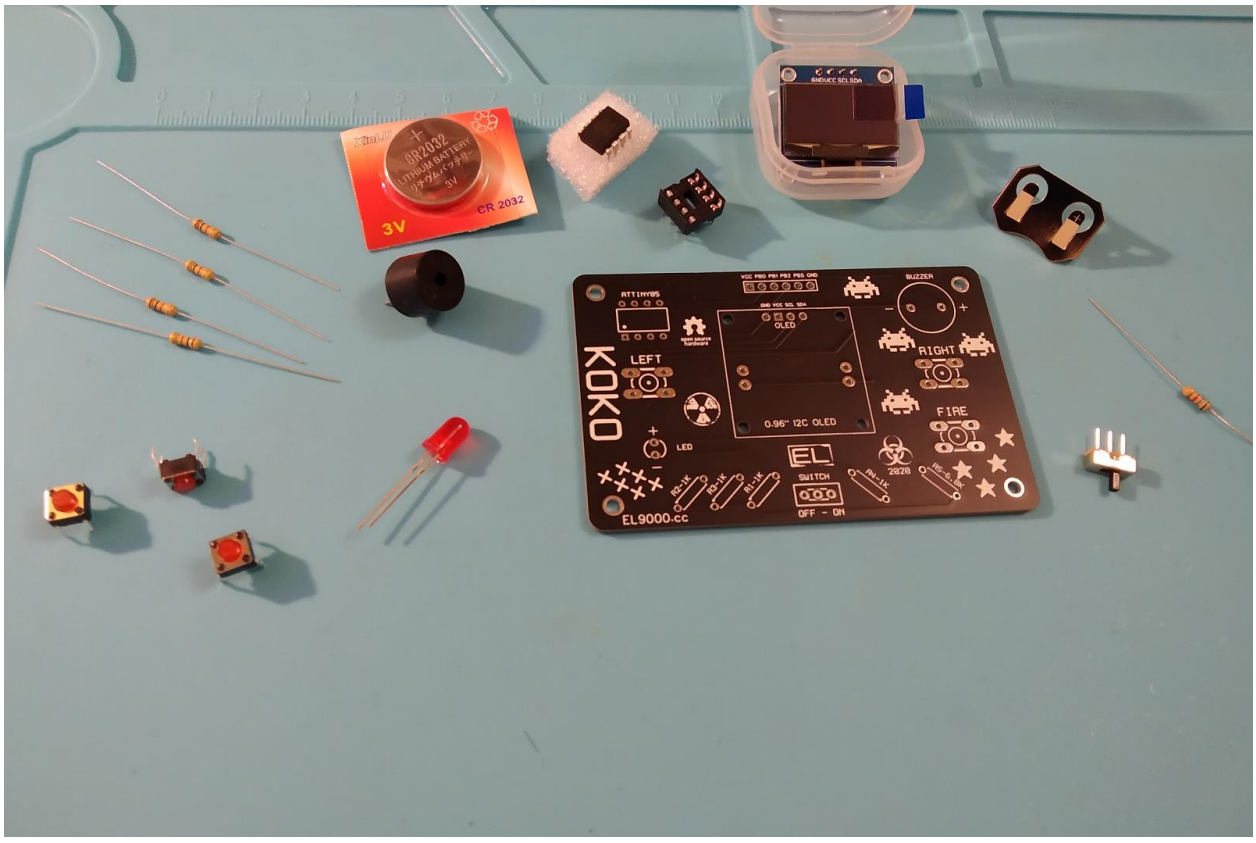
By Leonardo Leoni

KOKO is a game console for hobby use, it is not for industrial production. It has been created to give everyone a way to enjoy building a tiny game console themselves, learning how it works and how to solder.

Do you need to learn soldering? I used this guide, by Zakariah Martin-Taylor:
[Soldering tips and tricks]

Components

Note that components and board images can be different in shape and color.



KOKO components list

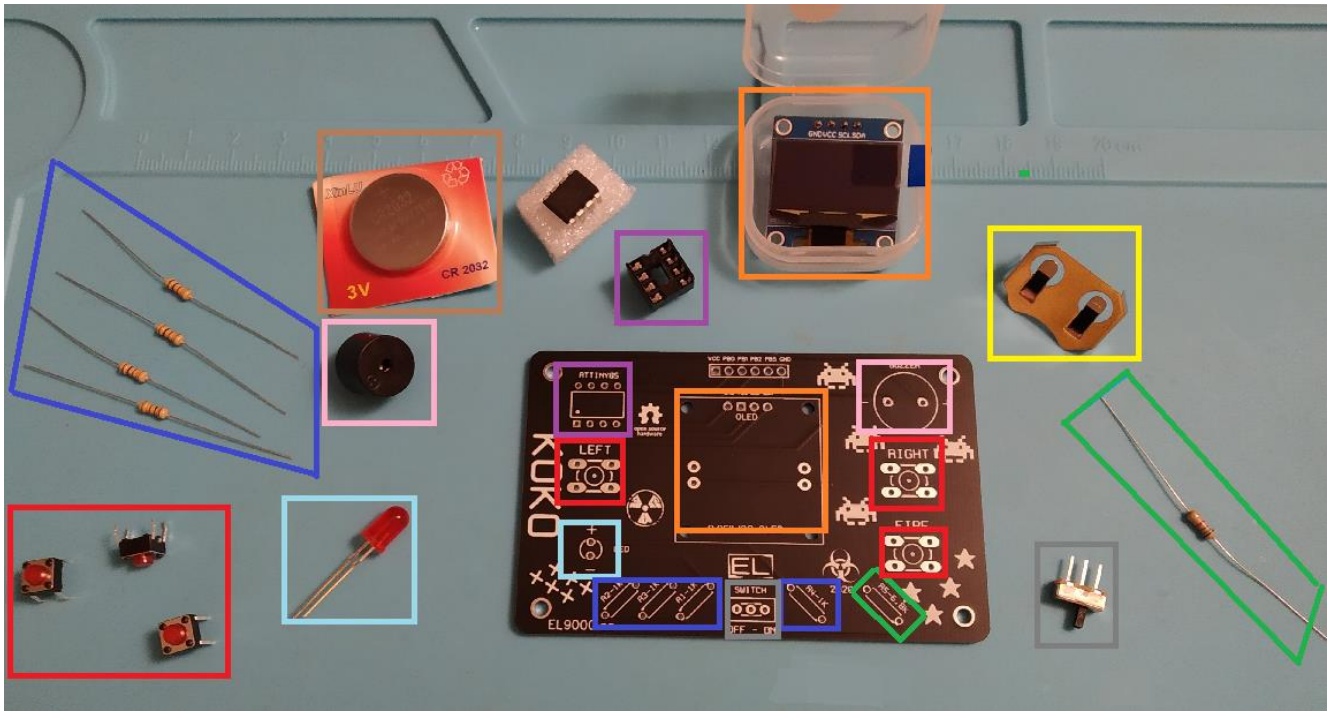
1 × KOKO PCB
1 × ATtiny85
1 × i2c Oled display 0.96" 4 pins
1 × CR2032 battery holder
1 × CR2032 battery
1 × Socket 6 pin
1 × Led
1 × Buzzer
4 × 1 K Ohm resistor
1 × 6.8 K Ohm resistor
1 × header 6 pin
1 × Toggle switch 3 pin
3 × tactile momentary switches

How to assemble it

This DIY kit is for hobby use only. You need to be able to solder electronic components.

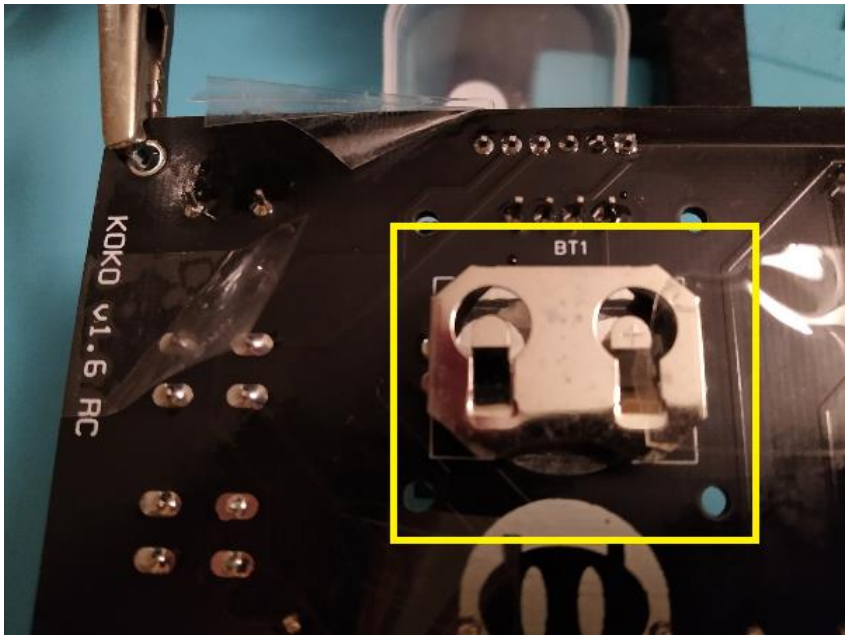
Be very careful the first time you put the battery in its holder. If the battery gets hot, remove it immediately from the holder, it means you made an error during assembly.

Documentation is available on my github repo : https://github.com/leonardo-code/KOKO



The 6 pin header on the top of the pcb is not in the picture, but it’s included.

Carefully look below at the position of the battery holder on the back of the pcb, otherwise you will not be able to insert the battery!



How to use it

The game console includes a preloaded game: Space Attack, a tiny version of Space Invaders.

You can play with it using left and right buttons to move and fire to shot and destroy the invaders.

It’s possibile to upload other games and you can easily create one yourself, if you are able to program a game in C language or if you want to learn it.

Thanks to the creators of Space Attack game Andy Jackson, webboggles, AttinyArcade, Neven Boyanov, Matthew Little, etc. I designed the pcb to take advantage of a code implementation to use a fire button with a 6.8k resistor.

On the console there’s a switch for the on/off function.

Have fun!
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