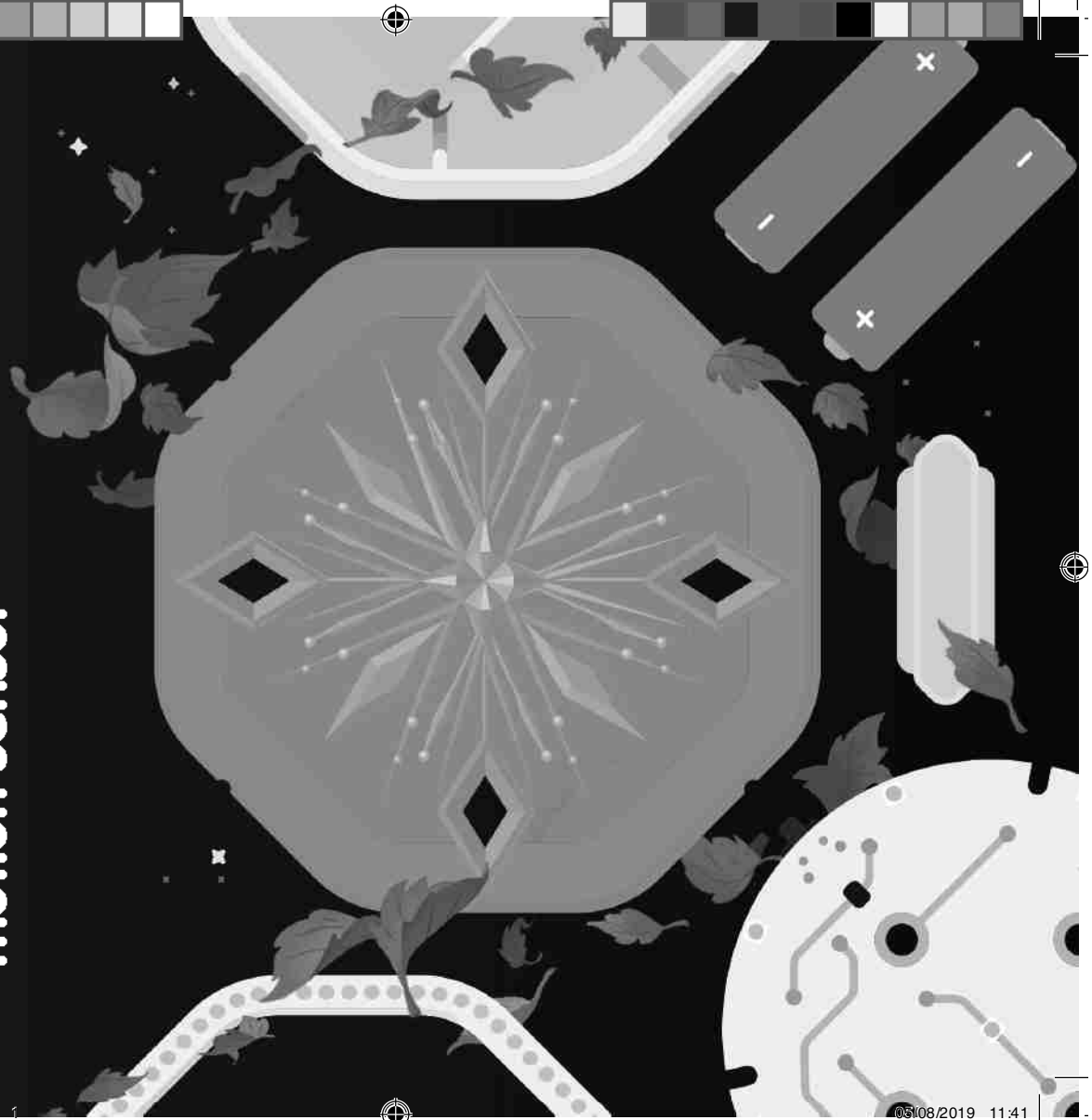
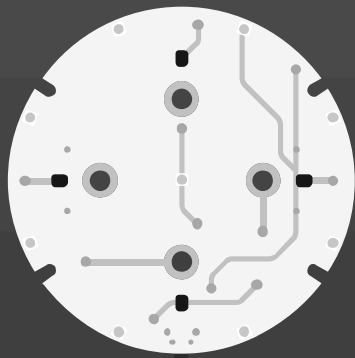


How to make a
Frozen II Coding Kit
motion sensor

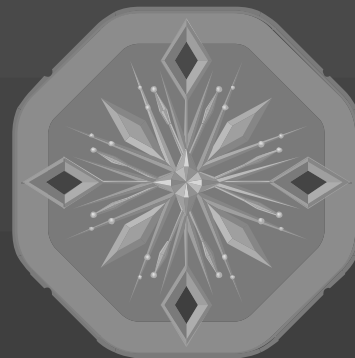




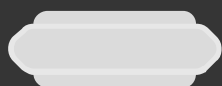




PCB + Sensors



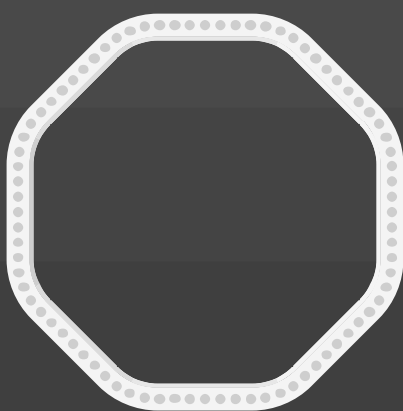
Light plate



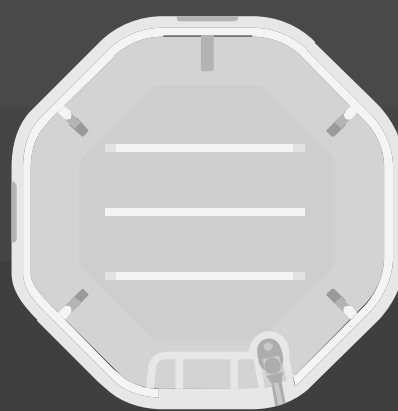
Power button



Batteries



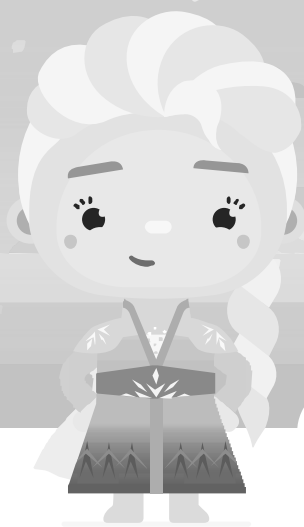
Top case



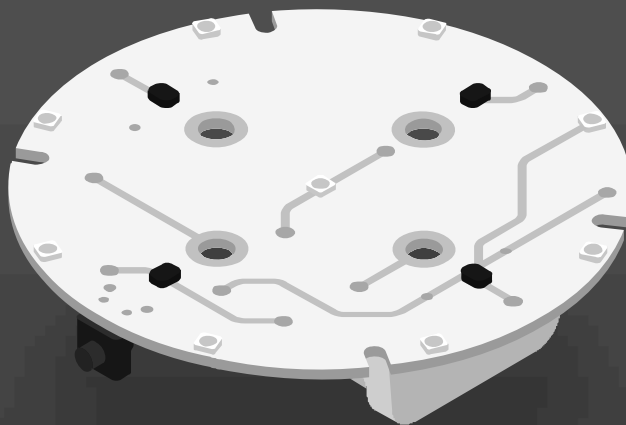
Bottom case



the unknown

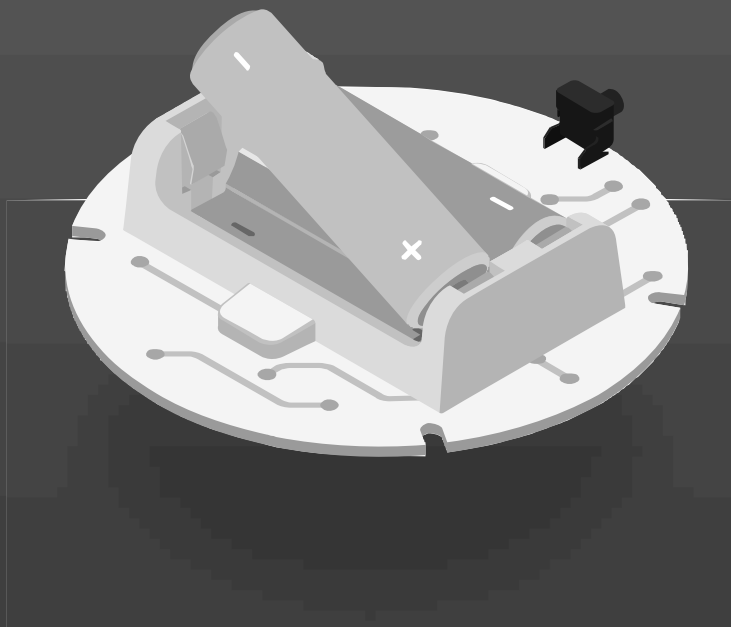


Let's begin. Pick up this piece



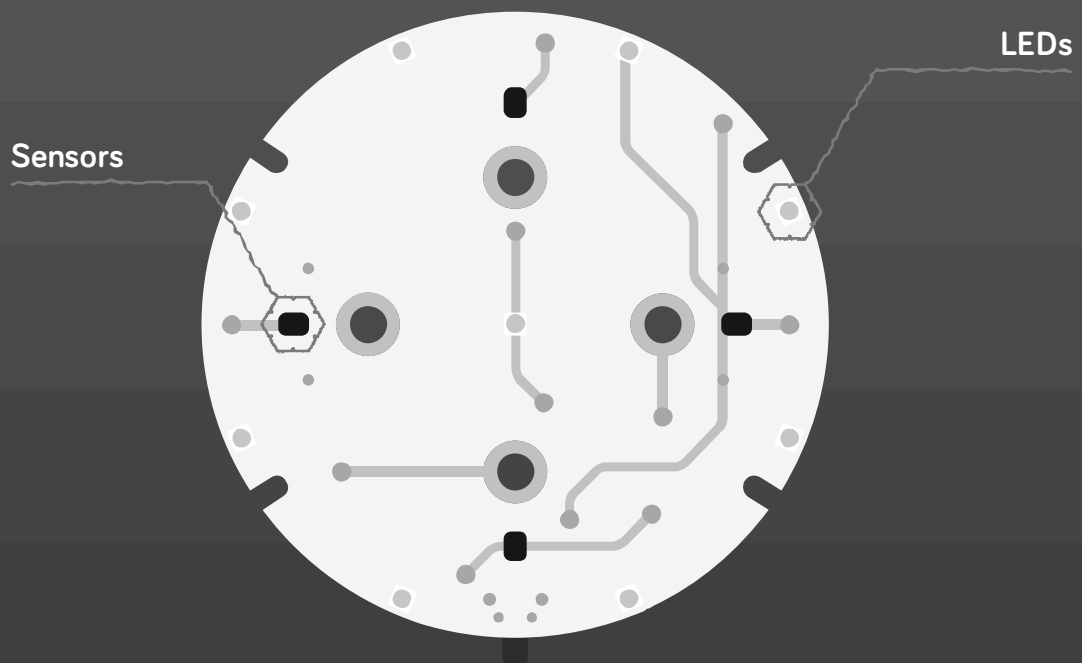
It's called a Printed Circuit Board or PCB

Turn over the PCB and slot in both batteries



Make sure they are the right way round

Take a closer look at the PCB



It's made of sensors, LEDs, microprocessors, resistors and tracers



Each sensor has two lenses. The top lens sends out an infrared beam

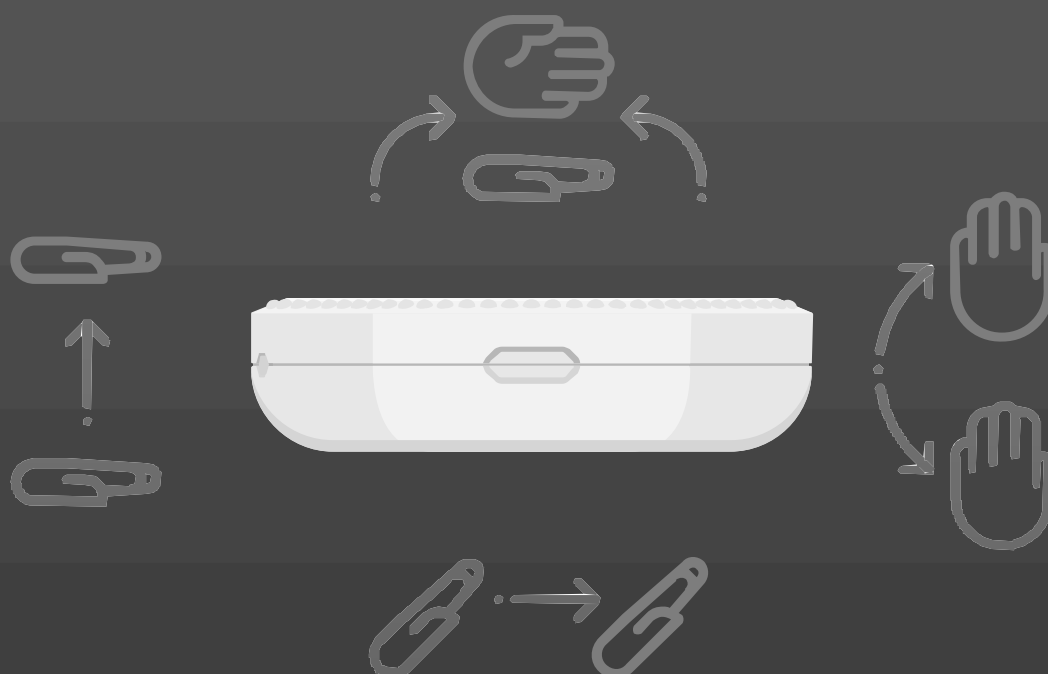
Infrared is a type of light invisible to humans

When your hand breaks the beam, it gets reflected back to the bottom lens



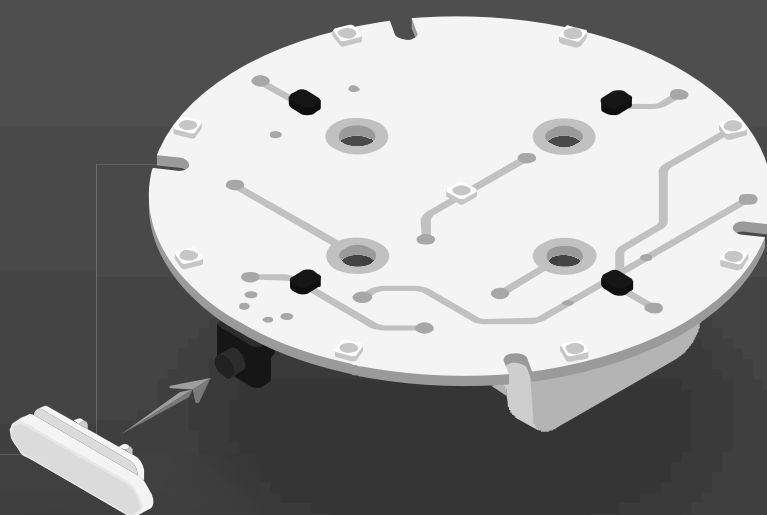
so the sensor can see where your hand is

All four sensors work together to tell if your hand is going...



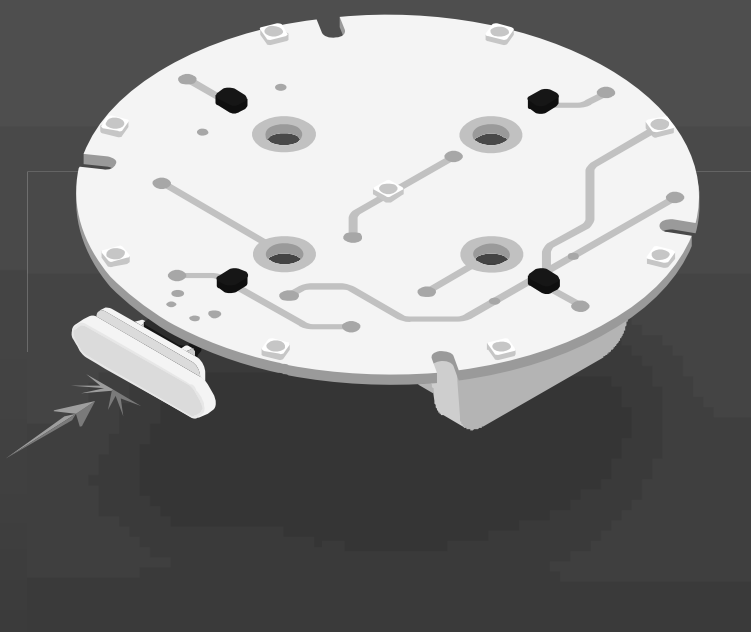
up, down, forwards, backwards, left, right, or tilting

Time to add some control

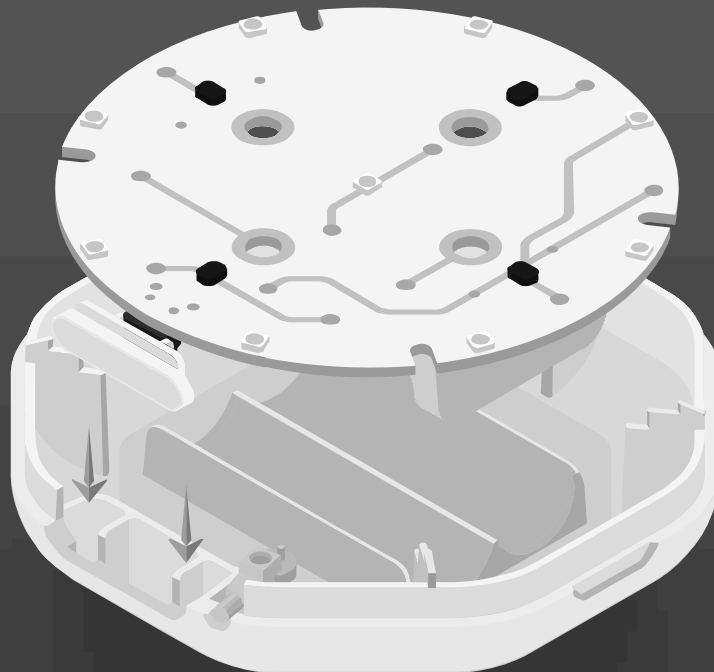


Push the power button onto the PCB

Make sure it is snug

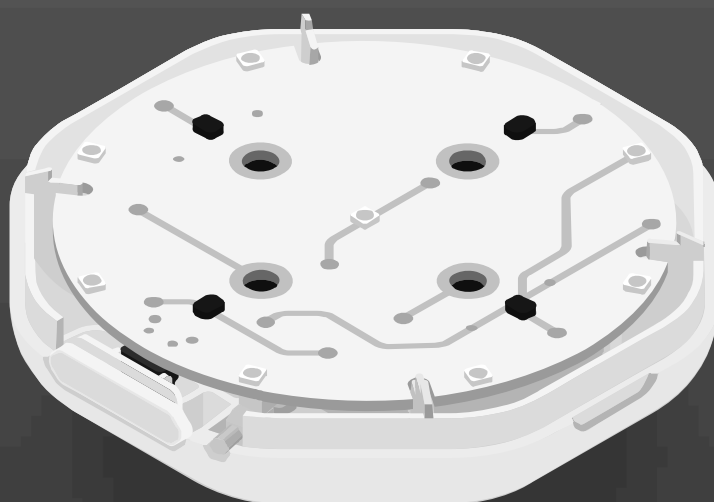


Now place the PCB into the bottom case

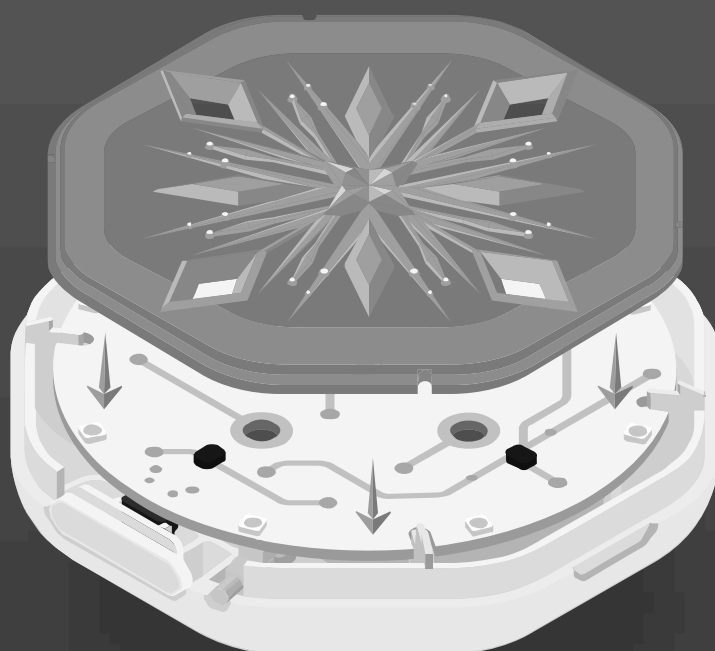


Line up the button with the groove in the base

Gently push the PCB into the base

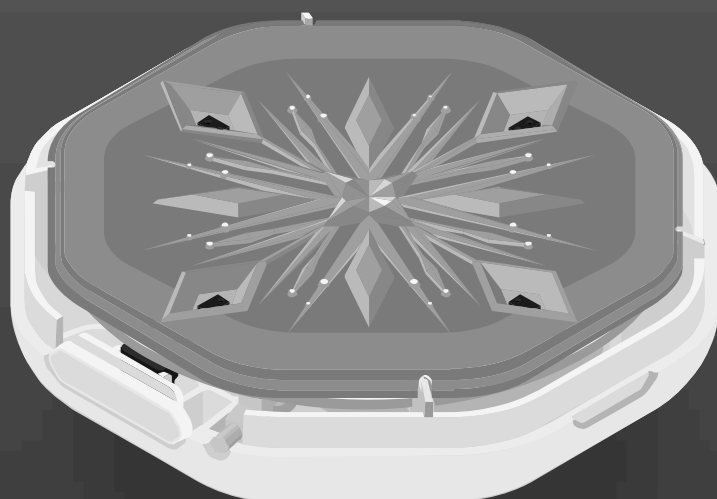


Take the light plate

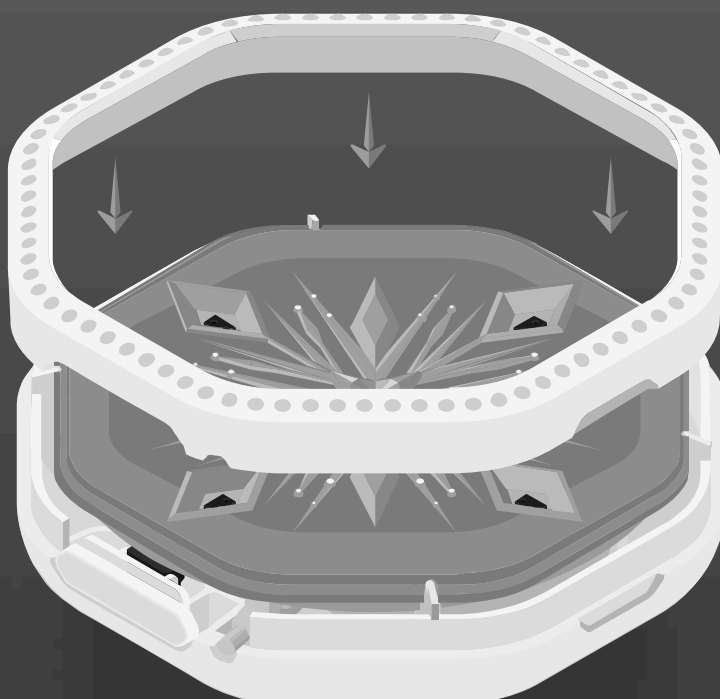


and place on top of the PCB

Make sure it's pushed in all the way

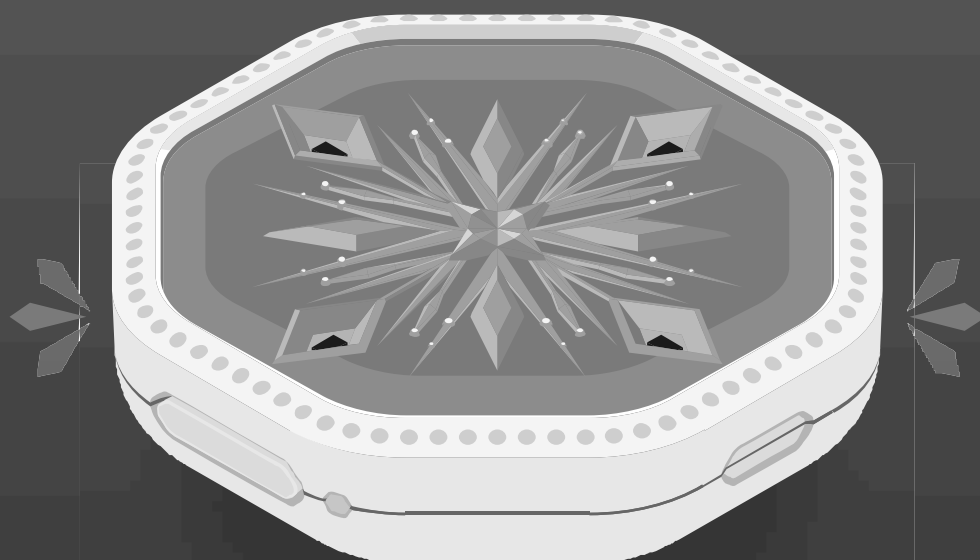


Take the top case

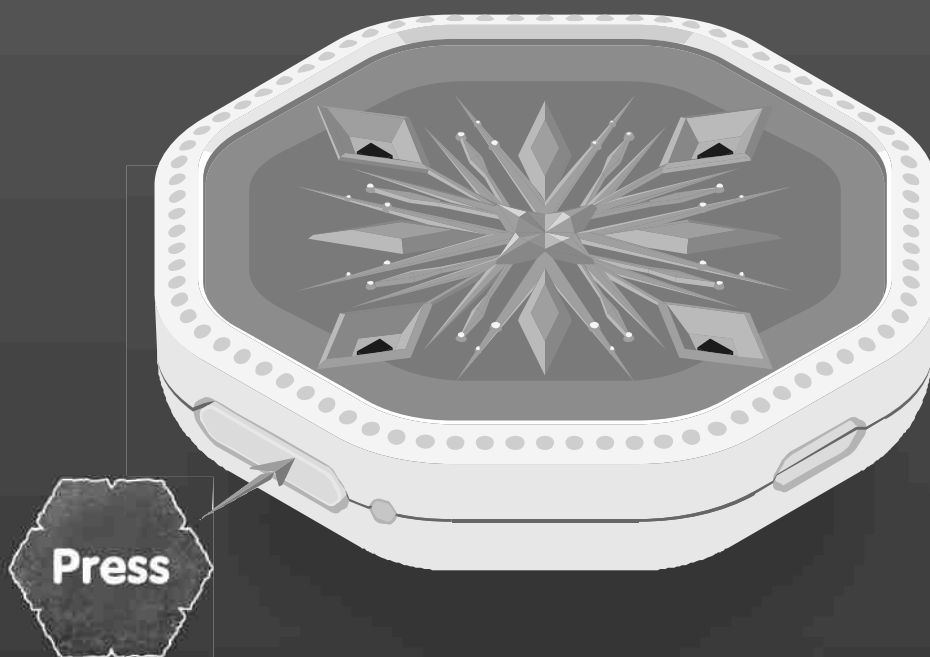


Push it onto the bottom case

Until it clicks



To turn it on...



press the power button

Now, reach out... put your hand over the sensors. What do you see?

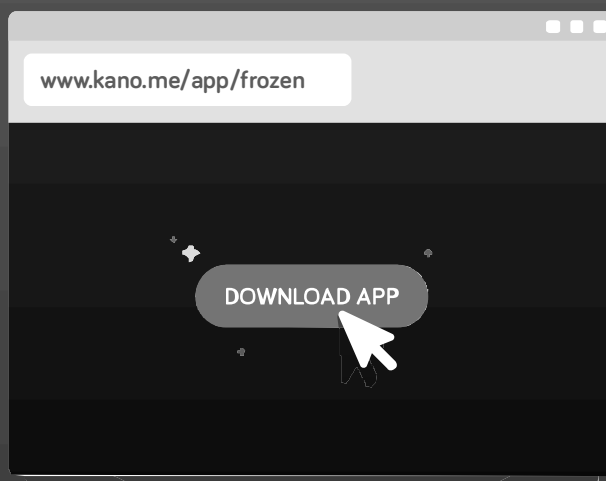


The PCB tells the lights to brighten as your hand gets closer to the sensors

Well done, your kit is built!



Now, simply download the app onto your device to start playing with
The Disney Frozen™ Coding Kit



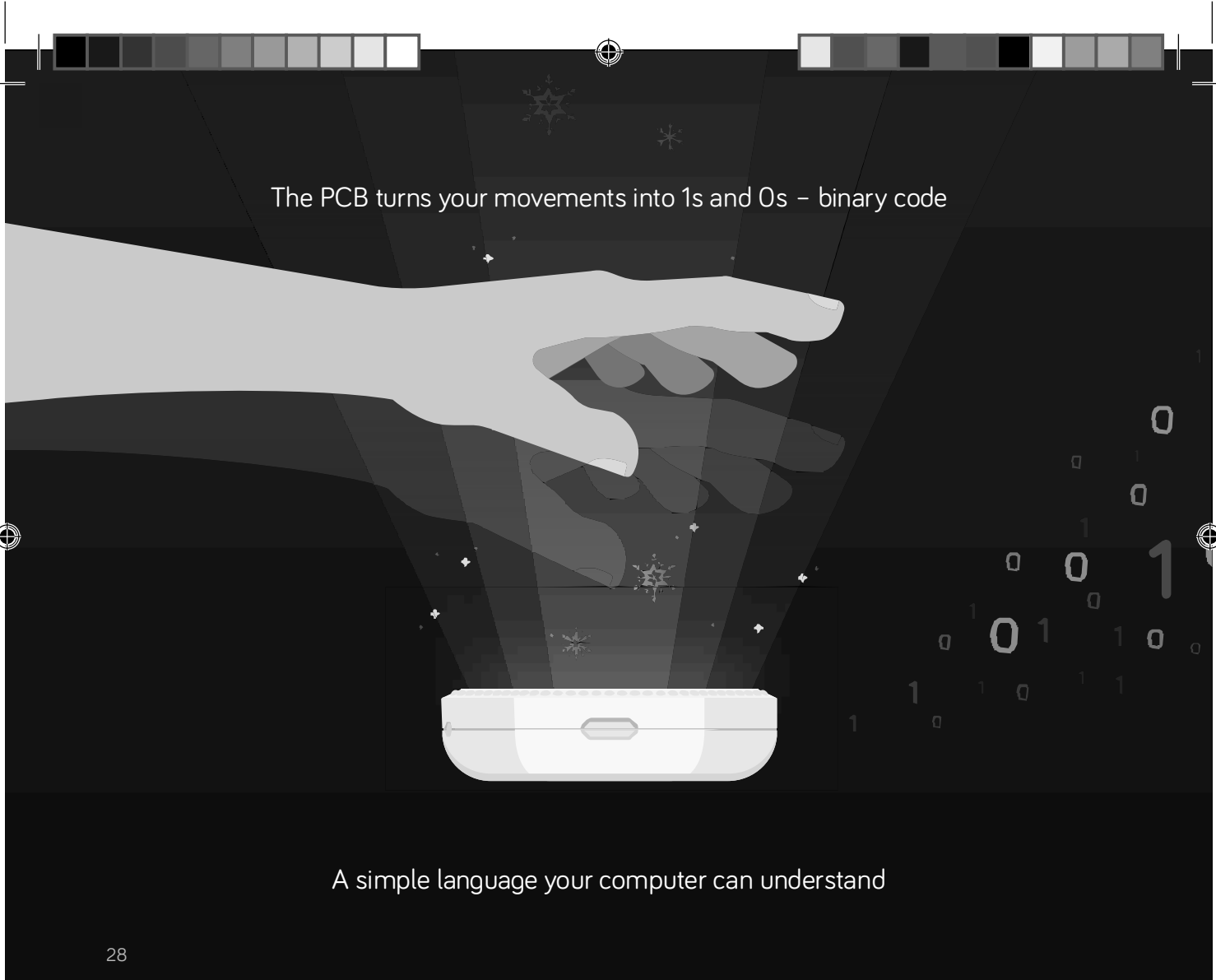
Download it at **kano.me/app/frozen**

Destiny

Discover new skills as you create en

awaits

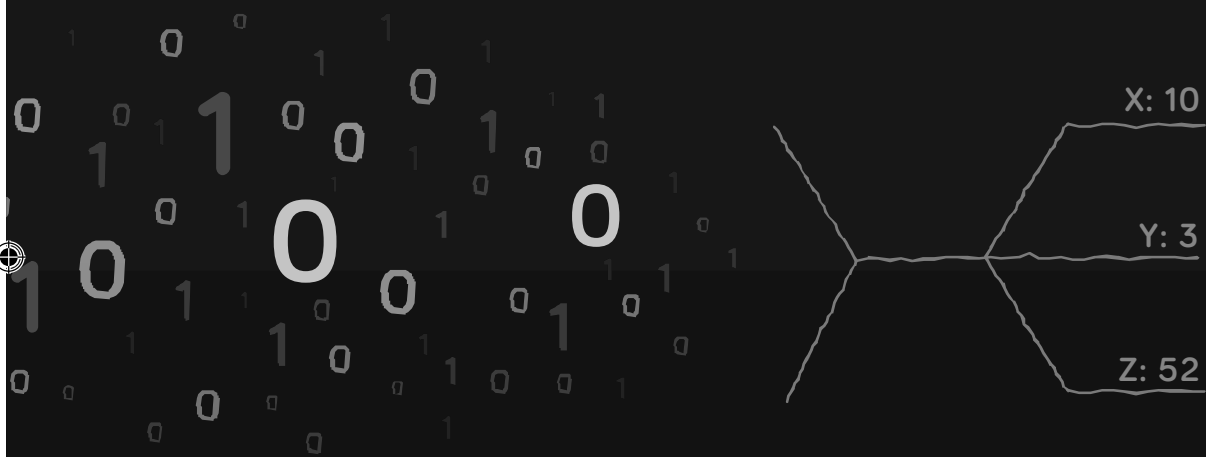
te endless Frozen adventures



The PCB turns your movements into 1s and 0s – binary code

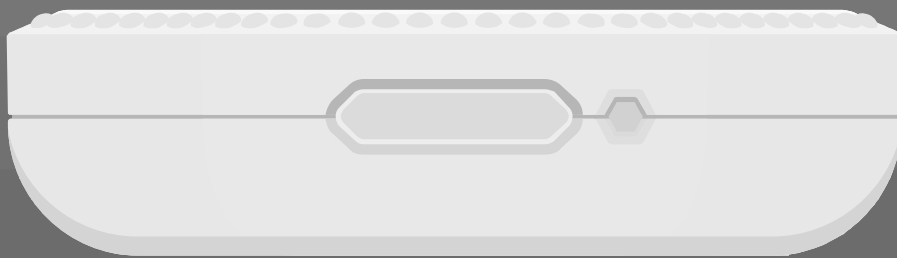
A simple language your computer can understand

It beams those 1s and 0s to your computer



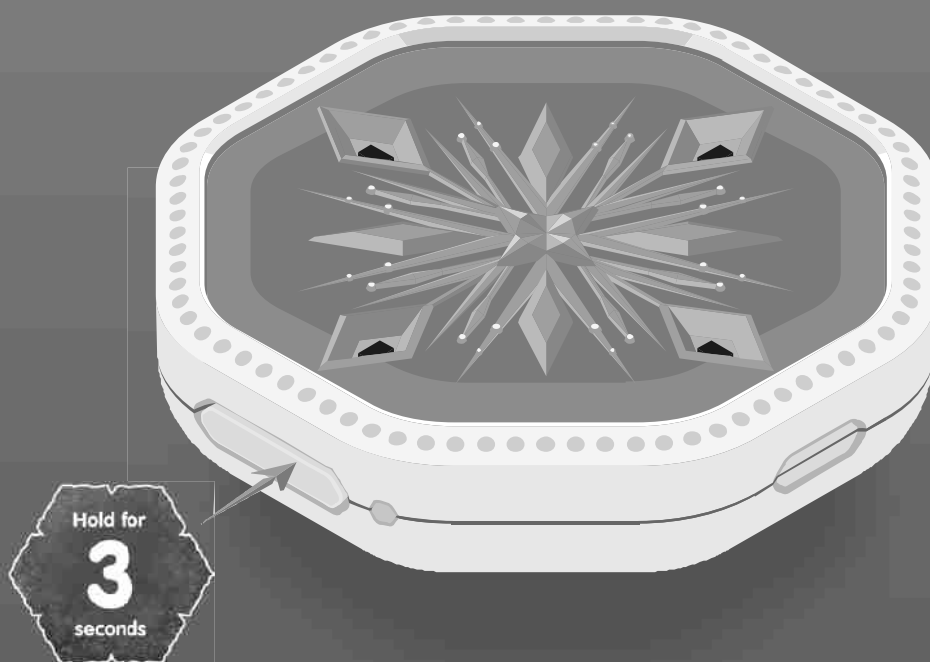
letting you make things move on a screen

The power button should always point towards you



So the kit knows which way it is facing

To save battery power, put the kit into sleep mode



Press and hold the button for three seconds

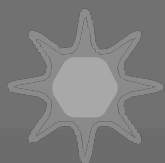


Hidden

truth



The Bluetooth light on the side will tell you if your kit is connected



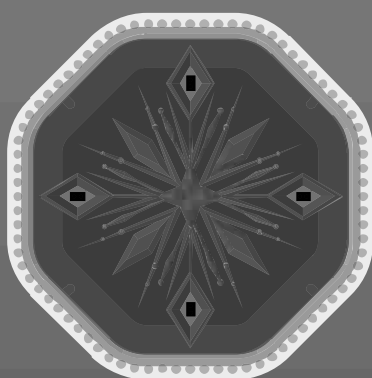
Flashing when searching



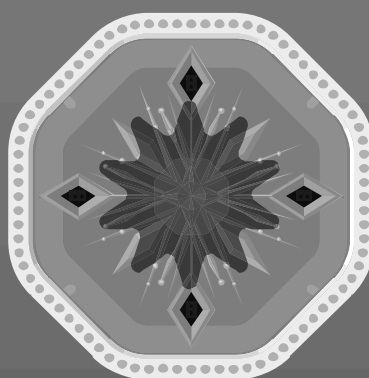
Solid when connected



The lights on top also tell you different things



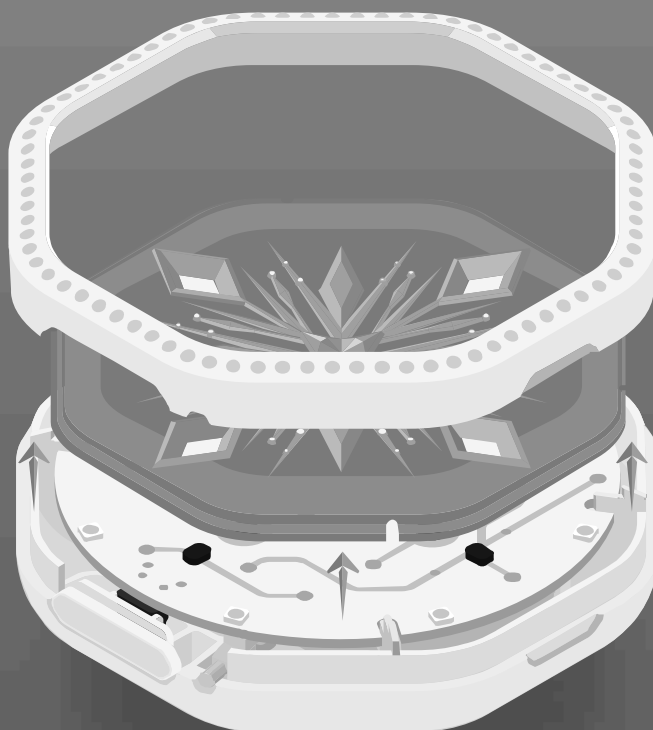
Low battery



Change batteries

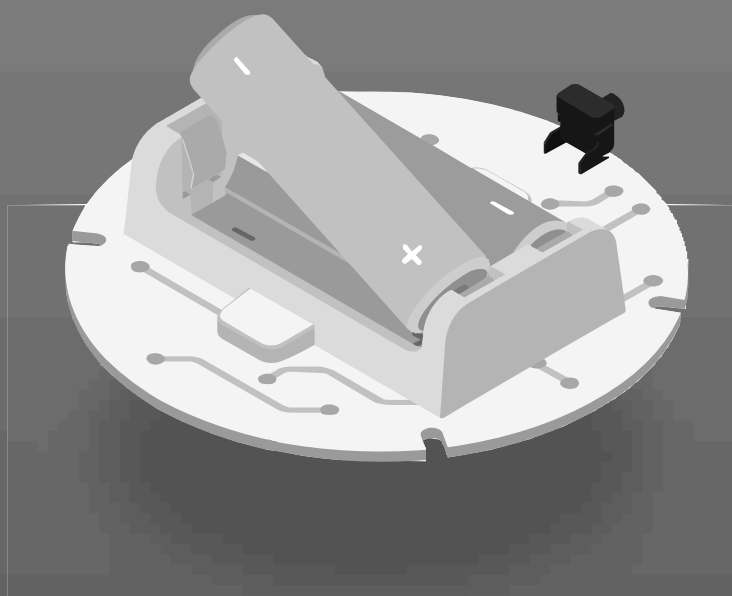


To change the batteries, press and hold the side



Pull the top case off and take off the light plate

Take out the PCB



and change the batteries



The answers are

there waiting



Something not working? Get help fast at **help.kano.me**

Use these help codes

The Disney Frozen™ Coding Kit not powering up	FR2
---	-----

The Disney Frozen™ Coding Kit won't connect to device	FR3
---	-----

Help installing or using the app	FR4
----------------------------------	-----

Device isn't supported	FR5
------------------------	-----

Want more?



help.kano.me
Help with anything
from kits to coding



kano.me/blog
For interesting articles,
help, and highlights



kano.me/app/frozen
Download the app
on to your device



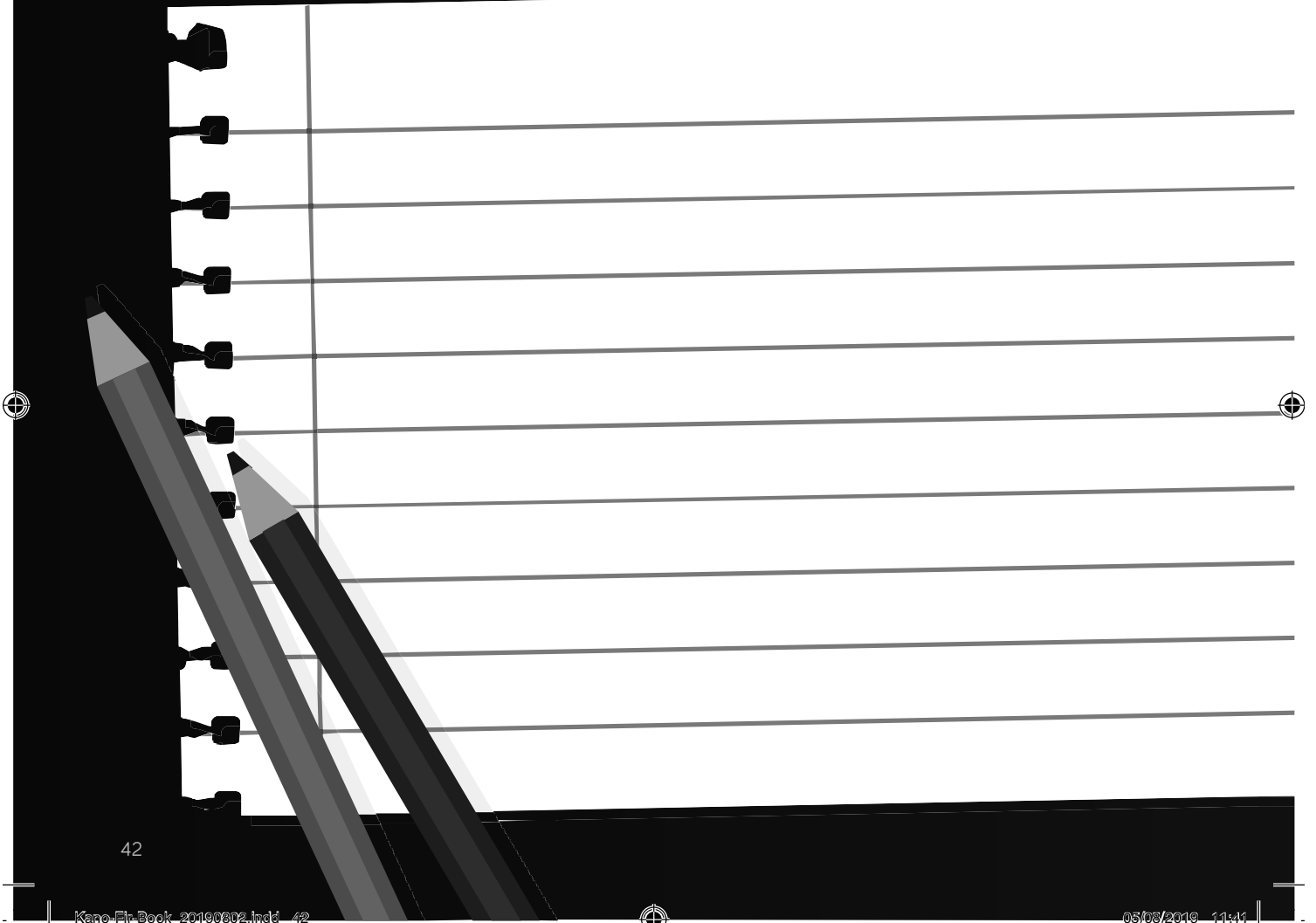
/teamkano
For tutorials, films
and fun stuff



/kanocomputing
Talk to us, and get
the latest news



@teamkano
Send us your pics
and questions



FCC Statement

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation.

2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: (1) Reorient or relocate the receiving antenna. (2) Increase the separation between the equipment and receiver. (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. (4) Consult the dealer or an experienced radio / TV technician for help.

IC Caution:

RSS-Gen Issue 4 December 2014 "2" CNR-Gen 4e Décembre 2014:

- English:

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device.

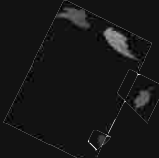
- French:

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Disney
FROZEN II



KANO
anyone can make

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