How to make a coding wand

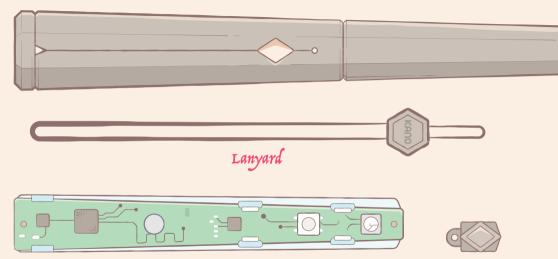
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Light particles	

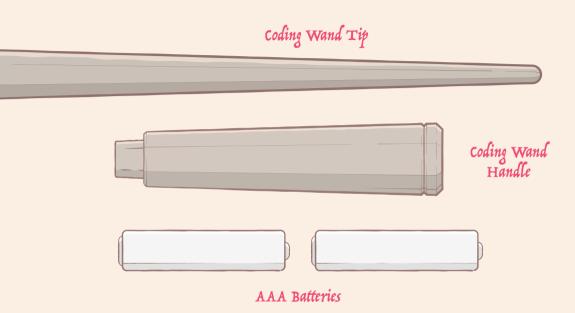
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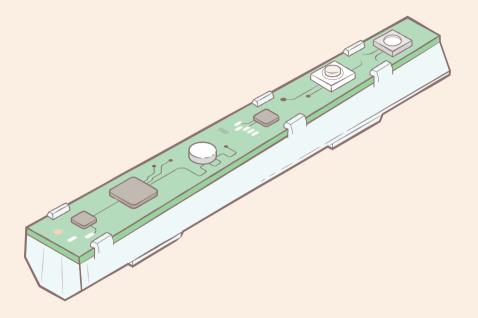
This is your coding wand. It's made of plastic, rubber, copper, and electronics.



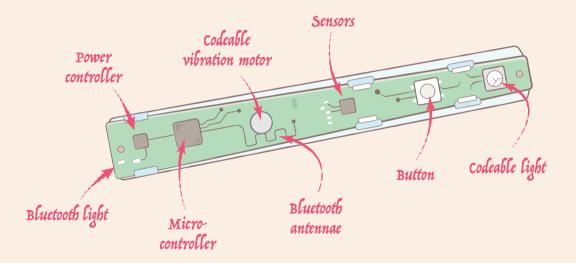
Button



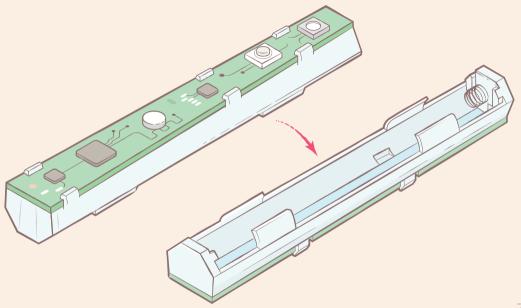
Let's build your coding wand. Pick up this piece.



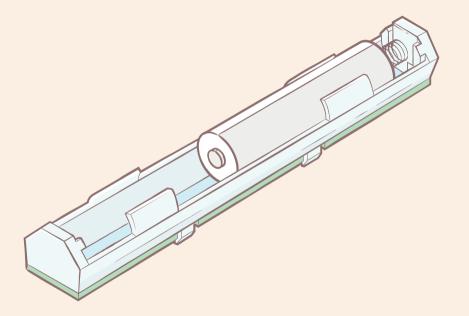
It's called a Printed Circuit Board or PCB. Look closely at the parts.

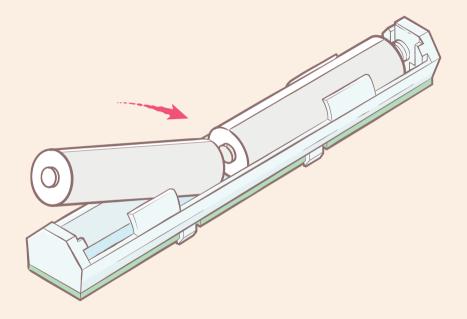


Let's add some power! Turn the PCB over. This is where the batteries go.



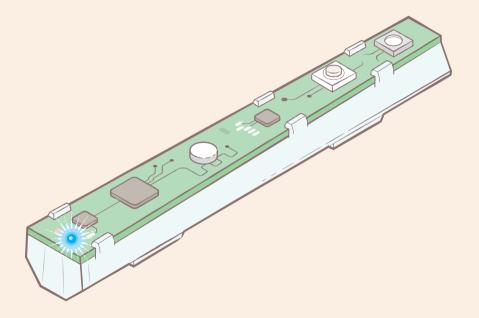
Slot the first battery in.



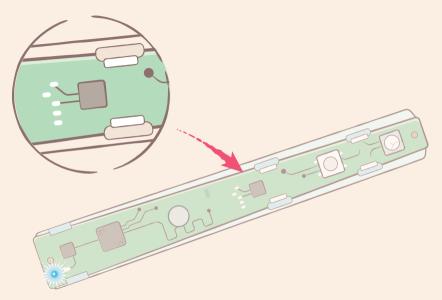




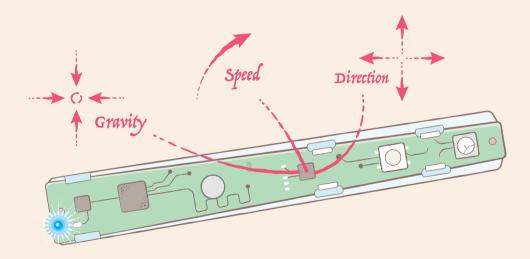
Flip the PCB over and make sure the blue light is on. If not, check the batteries are the right way round.



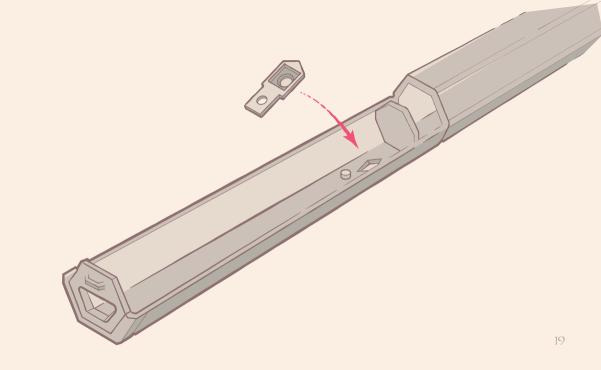
Inside this little black square are three sensors. A **gyroscope** that senses gravity, an **accelerometer** that knows your speed, and a **magnetometer** to calculate the coding wand's direction.

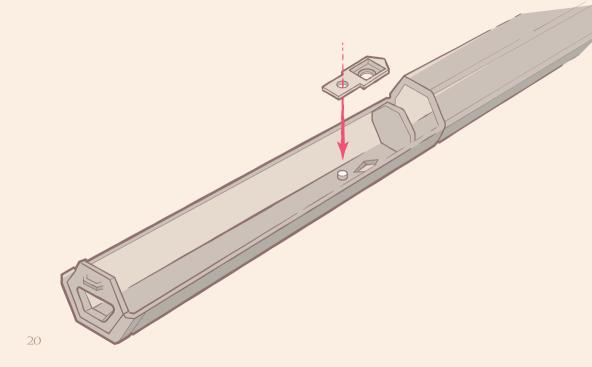


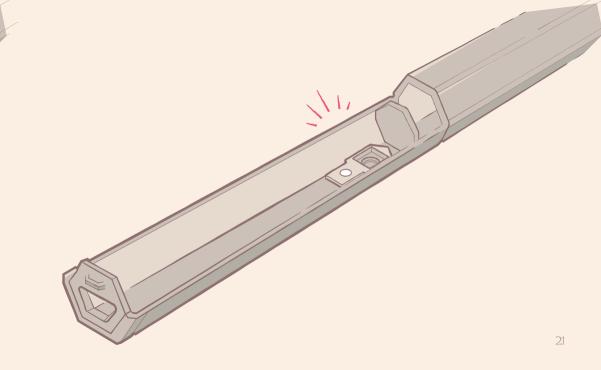
That means your coding wand knows if you're moving it up, down, forwards, backwards, left, right, quickly or slowly.



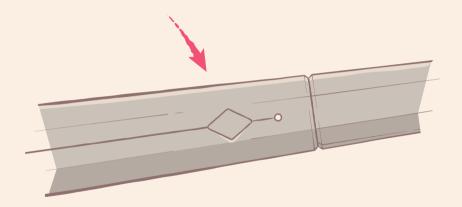
Grab the button, and place it into the hole of the coding wand handle.





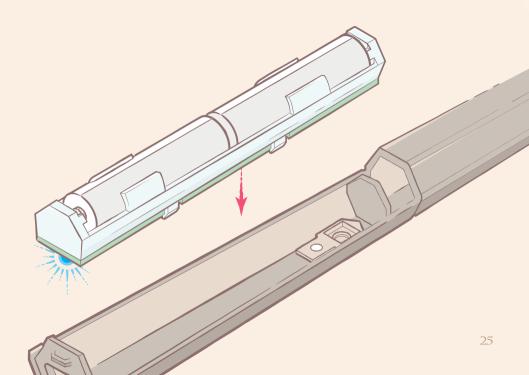


Great! Flip the coding wand over, and make sure the button is peeping out.

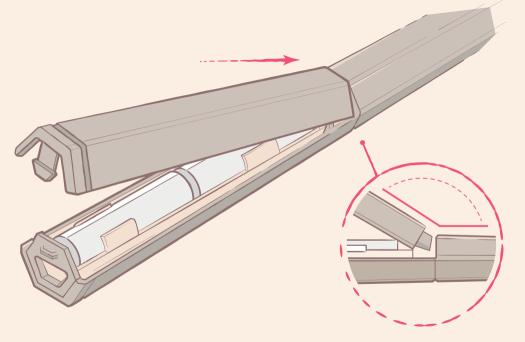


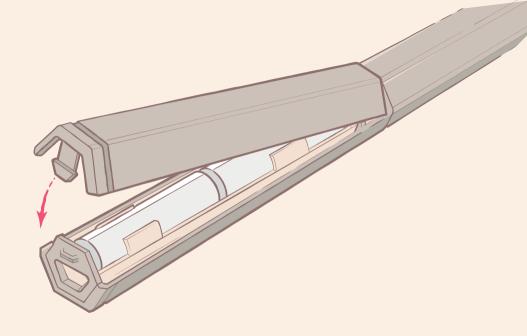
Put the coding wand on a flat surface, and carefully place the PCB into the handle.

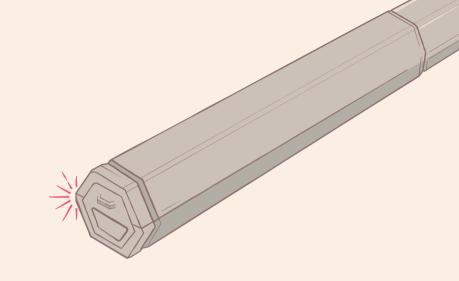
No blue light? Press the PCB button to wake up your coding wand.



Grab the coding wand handle cover. Slide it in, then clip it down.







Excellent. Pick up your coding wand.



"I think it is clear that we can expect great things from you." – G. Ollivander

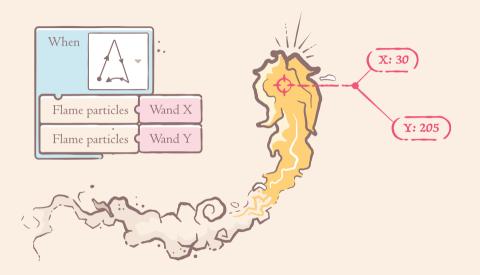
When you wave your coding wand, the sensors turn your movement into data, and the PCB beams that data to your computer.



Your computer then turns that data into code.

JΫ X: 30 Right Left Up ^{Up} Left Slow Fast Left Slow Fast Right Fast Up Right Left Up Right Left Computer Y: 30 Down z: 30 35

With the right movements, a bit of code, curiosity and creativity...



You can make flames flow, pumpkins grow, goblets multiply, flowers bloom, fireworks that boom, and more.



Your tablet or computer needs the Kano app to talk to your coding wand. Download it from **Kano.me/app**.

ΚΑΝΙΙ ΑΡΡ **ONLY 92.569.106 BYTES** → KANO.ME/APP ← CONTROL CODING KITS, CONQUER CHALLENGES, C **CREATE & LEAR ON ANY COMPUTER!**

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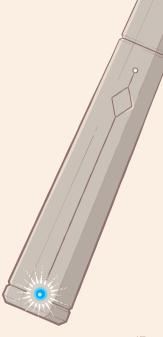
The Bluetooth light tells you if your coding wand is connected to your computer.



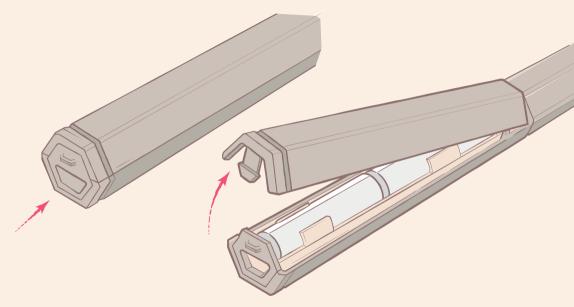
It will flash when searching for a Bluetooth connection...



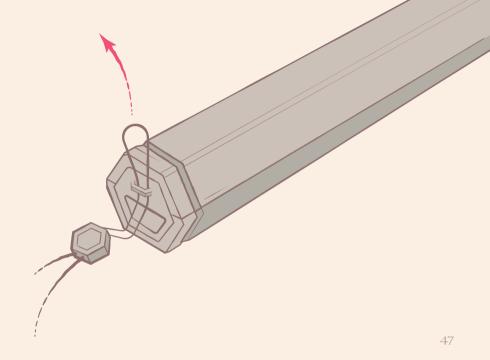
...and stop flashing once connected!

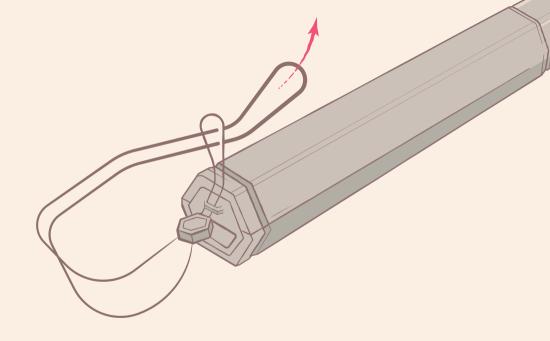


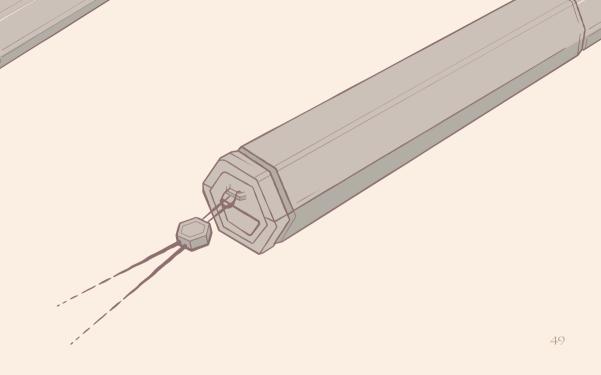
Need to open your coding wand? Press the button at the bottom to unclick the cover.



If you want to use the lanyard, push the small loop through this hole.







Something not working? Get help – go to **help.kano.me** and search the Help Codes below:

Coding wand isn't powering up	WA2
Coding wand can't connnect to device	WA3
Help installing or using the app	WA4
Device isn't supported	WA5



help.kano.me

Help with anything from kits to coding



kano.me/world

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More Kano Kits to build and code



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