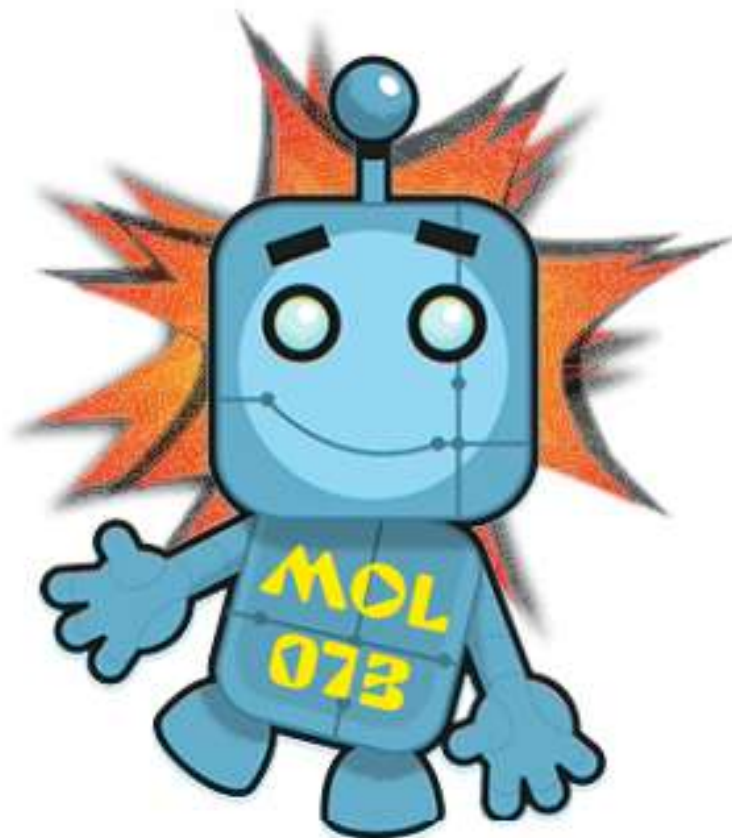


Mobiel Ontdek Lab 073

Neuron

Inventor kit
Makeblock

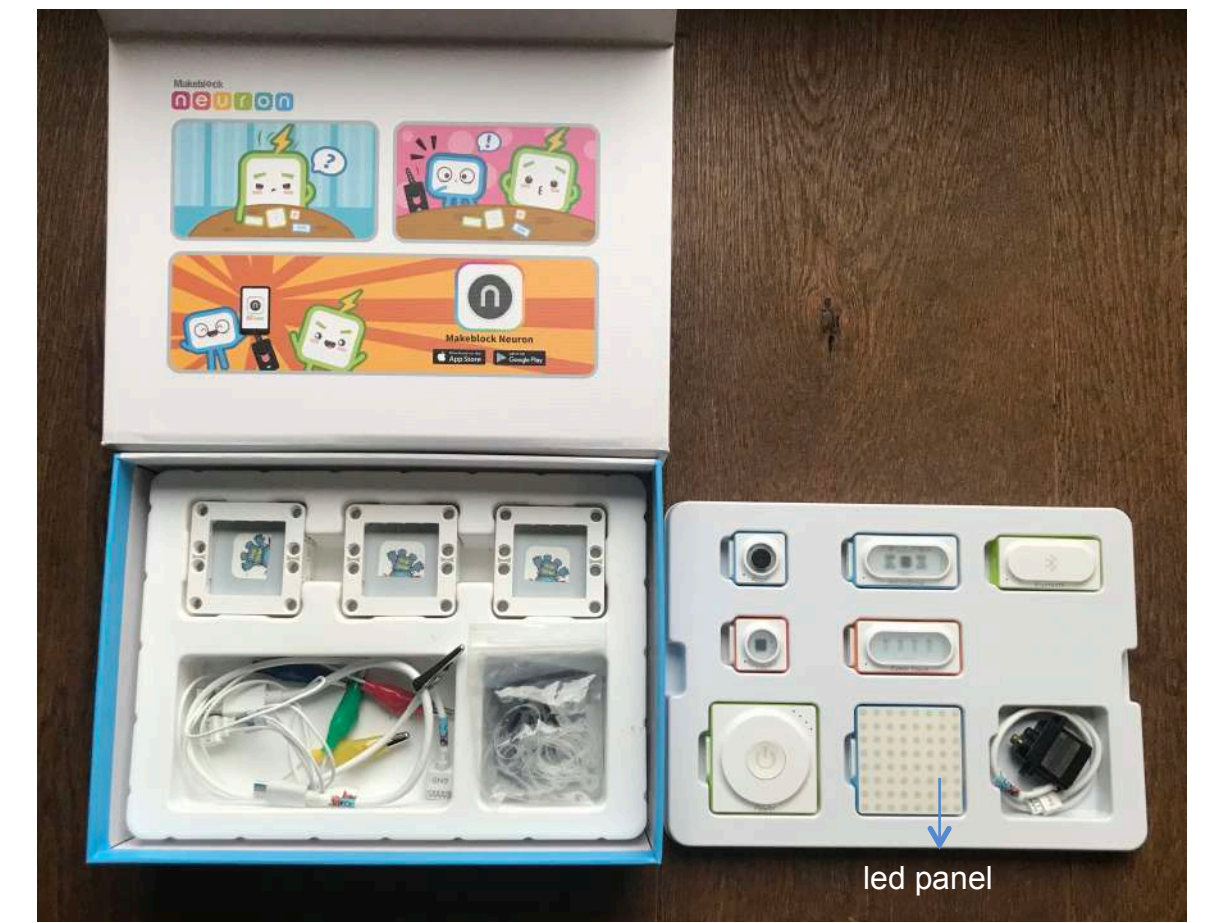


Mobiël Ontdek Lab 073

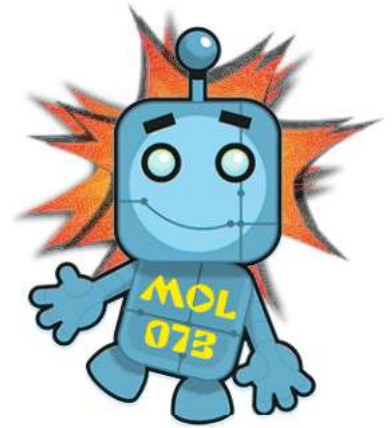


The image shows the box of the Makeblock Neuron Inventor Kit on the left. The box is white with blue and orange accents. It features the text 'Makeblock neuron INVENTOR KIT' and 'Ages 8+'. On the right is the MOL 073 mascot, a blue robot with a yellow lightning bolt on its head and 'MOL 073' on its chest.

Inhoud:



The image shows the contents of the kit laid out on a wooden surface. On the left is the open box with the lid showing instructions and app information. To the right is a white tray containing various components: three small white modules, a USB cable, a breadboard, a power button, a small camera module, a microphone module, a speaker module, and a small black component. A blue arrow points to the breadboard with the text 'led panel' below it.



led panel



16 stuks



Gnd kabel

servo

usb kabel

Kabel met
4
krokodillen
bekjes



connectors

3 witte servo
hubs + 3
schroefjes

elastiekjes



- 1 power
- 1 gyro sensor
- 1 bluetooth
- 1 buzzer
- 1 servo driver
- 1 funny touch
- 1 servo motor
- 1 led panel (blauw)

- 1 usb kabel
- 1 GND kabeltje met krokodillenbek
- 1 kabeltje met 4 krokodillenbekjes
- 9 witte Neuron blokken
- 3 witte servo hubs + 3 schroefjes
- 35 zwarte pinnetjes (connectors)
- 19 elastiekjes

- gebruiksaanwijzing
- 16 kartonnen accessoires



Tail-wagging Cat

Touch its head and see it wag its tail.

Working Principle

Use the Gyro Sensor block to detect vibrations, and activate the Servo to control the movement of the cat's tail.

Parts List

1. Blocks: Power, Gyro Sensor, Dual Servo Driver, Servo
2. Accessories: Servo Hub, Friction Pin Connectors*8, Neuron Board*4
3. Others: Paper Model

Makeblock



Happy Rabbit

An excited rabbit making faces.

Working Principle

The LED Panel displays different expressions based on coding commands.

Parts List

1. Blocks: Bluetooth, Power, LED Panel
2. Accessories: Neuron Board*3, Friction Pin Connectors*8
3. Others: Paper Model

Makeblock



Night Lamp

Knock on the desk and light up the lamp.

Working Principle

Knock on the desk. The LED Panel will activate when the Gyro Sensor detects vibrations.

Parts List

1. Blocks: Bluetooth, Gyro Sensor, Power, LED Panel
2. Other: Paper Model

Makeblock



Noisy Robot

The robot will make a weird noise when shaken. It will get crazier when shaken heavier.

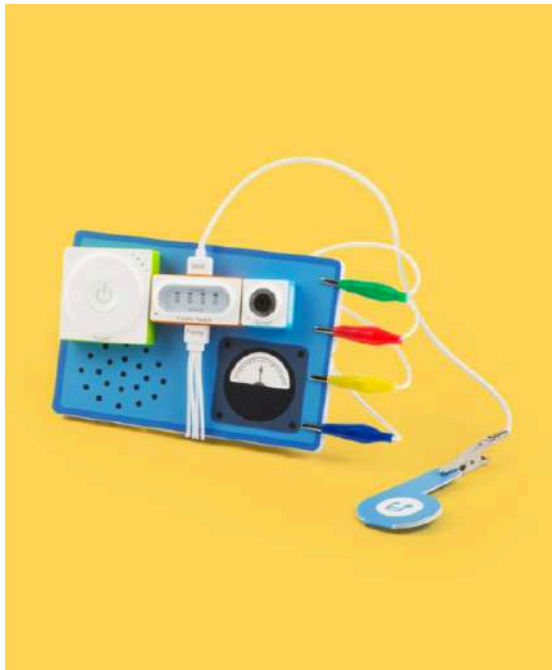
Working Principle

The different angles of the Gyro Sensor correspond to the different sounds of the Buzzer. Shaking the Gyro Sensor will change its angles, producing different sounds.

Parts List

1. Blocks: Power, Gyro Sensor, Buzzer, Dual Servo Driver, Servo
2. Accessories: Neuron Board*9, Friction Pin Connectors*12, Servo Hub
3. Others: Paper Model

Makeblock



Telegraph

Send Morse Codes using a mock Telegraph.

Working Principle

Funny Touch is able to turn any conductive object into a touch switch. The Buzzer beeps when Funny Switches and GND Wire are connected together. Short and long beeps makes Morse code.

Parts List

1. Blocks: Funny Touch, Power, Buzzer
2. Accessories: Neuron Board*6, Friction Pin Connectors*10, Funny Switch, GND Wire
3. Others: Paper Model

Makeblock



Electric Guitar

Let's make an Electric Guitar.

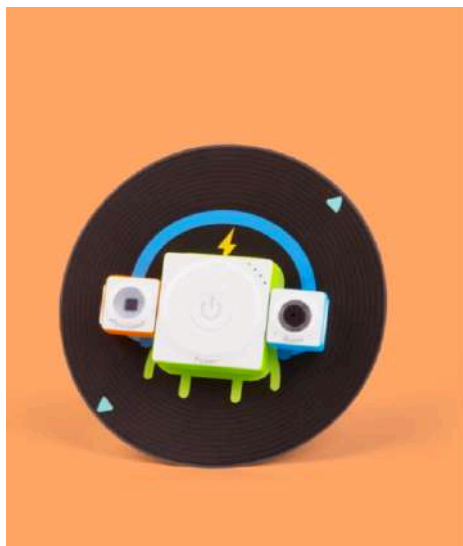
Working Principle

Funny Touch is able to turn any conductive object (such as human body and water) into a touch switch. Touch the GND Wire and Funny Switches. Different combination makes different sounds

Parts List

- 1.Blocks: Funny Touch, Buzzer, Power
- 2.Accessories: Neuron Board*7, Friction Pin Connectors*12, Funny Switch, GND Wire
- 3.Others: Paper Models

Makeblock



DJ Machine

Twirl the disc to make your own music.

Working Principle

Rotate the Gyro Sensor on the desktop to make sound of various pitches.

Parts List

1. Blocks: Gyro Sensor, Power, Buzzer
2. Accessories: Neuron Board*1, Friction Pin Connectors*1
3. Others: Paper Model



Light Palette

A palette changing its color.

Working Principle

Funny Touch is able to turn any conductive object into a touch switch. Touch the GND Wire and Funny Switch to bring about various lighting effects.

Parts List

- 1.Blocks : Funny Touch, Power, LED Panel
- 2.Accessories: Neuron Board*4, Friction Pin Connectors*6, Funny Switch, GND Wire
- 3.Others: Paper Model



Peace Keeper

Diffuse the bomb by taking of the clips without triggering the alarm.

Working Principle

The Buzzer will buzz when the Gyro Sensor detects a vibration. A buzzing Buzzer means the bomb has exploded, meaning game over.

Parts List

- 1.Blocks : Power, Funny Touch, LED Panel, Gyro Sensor, Buzzer
2. Accessories: Neuron Board*5, Friction Pin Connectors*8, Funny Switch, GND Wire
3. Others: Paper Model

Handleiding:

Wat is de Makeblock Neuron Inventor Kit ?

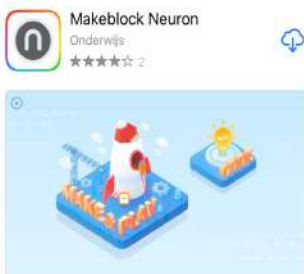
De Makeblock Neuron Inventor Kit, is een pakket met Makeblock Neuron programmeerbare elektronische bouwstenen inclusief geluid, licht en allerlei sensoren. Makeblock Neuron moedigt alle “makers” aan om hun ideeën om te zetten in echt werkende gadgets.

Bouwstenen worden in een handomdraai verbonden met **magnetische Pogo-pinnen**. Gebruikers kunnen eenvoudig de blokken samenstellen om creatieve gadgets te maken zonder code te hoeven schrijven.

Geen programmeerervaring vereist: De grafische programmeer interface in de Neuron-app stelt beginners in staat eenvoudig Neuron toepassingen te maken en basis- of geavanceerde functionaliteit toe te voegen aan hun uitvindingen.



Download de gratis app in de App Store: **Makeblock Neuron**

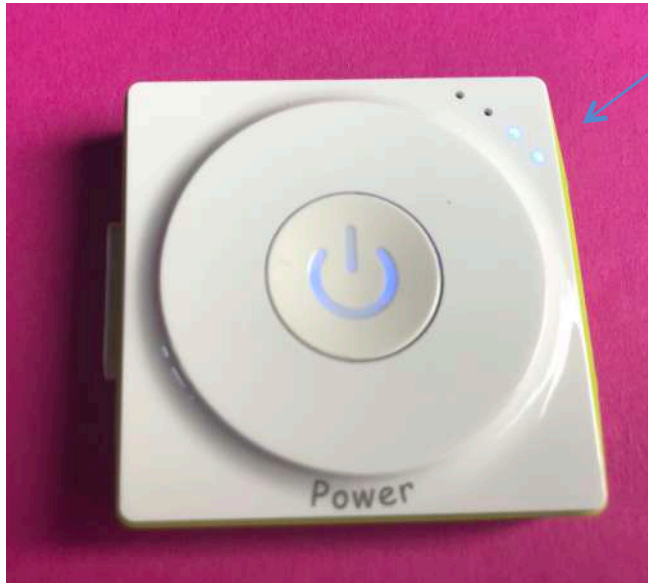


Volg de instructies op je scherm

Het input block (**oranje**) moet aan de linkerkant vastgeklikt worden van het output block (**blauw**), wanneer je de app niet gebruikt!

Je kan zonder en mèt coderen aan de slag.

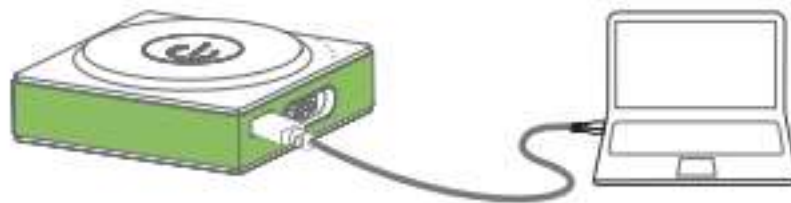




Druk op de powerknop en je ziet aan het aantal lichtjes wanneer je het blok moet **opladen** met de usb-kabel in je computer/tablet/chromebook.

Uitzetten: druk 3 seconden de powerknop in!

Via computer



Bluetooth: draadloze verbinding tussen blokken en tablet/smart phone

Je kan dan de blokken programmeren via Makeblock Neuron app.



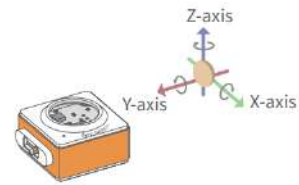
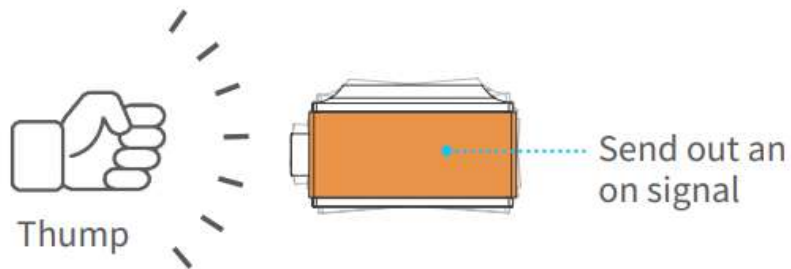
Bluetooth
Establish wireless
connection between blocks
and Neuron APP



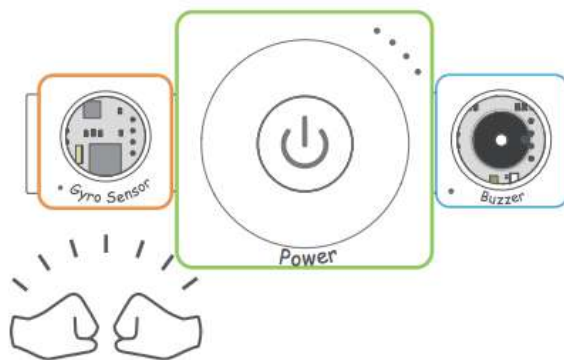
Input blokken (oranje)

Gyro sensor

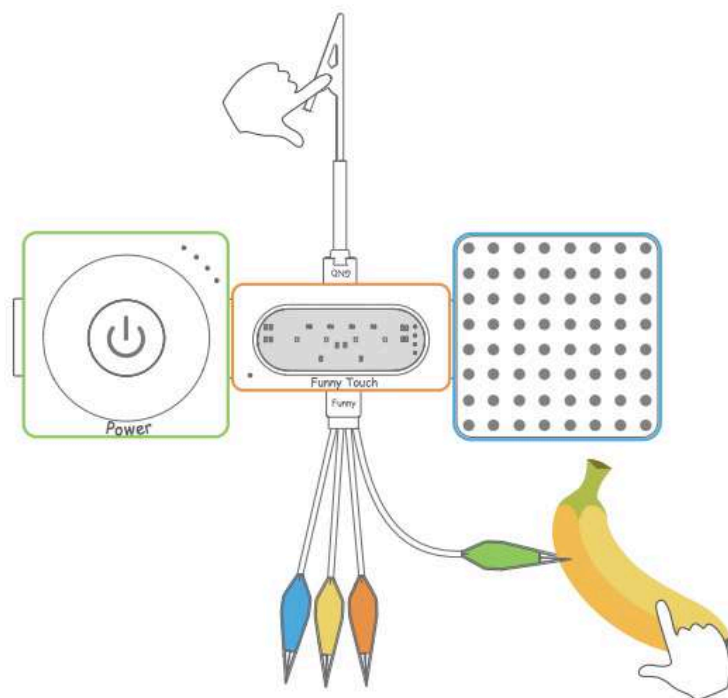
- positie bepalen/beweging van je creatie
- bij trilling zal de sensor een signaal geven



Probeer het volgende uit:

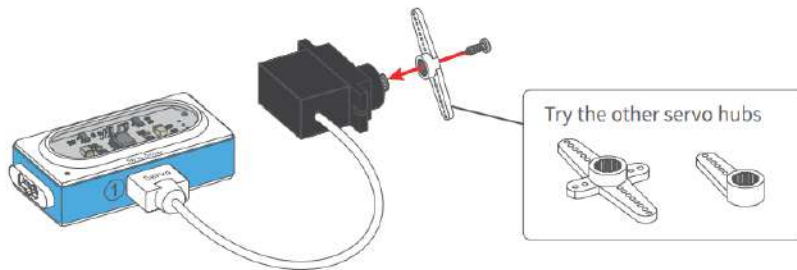


Je kan op deze manier kijken wat allemaal stroom geleidt.

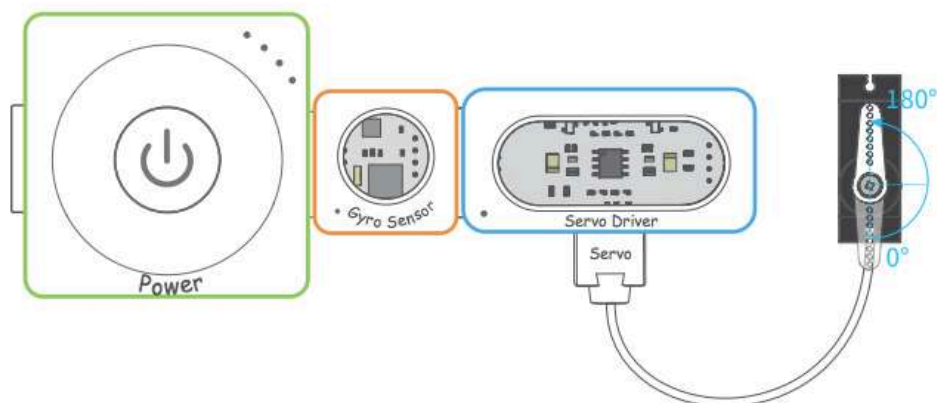


Input blokken (blauw)

Dual servo driver + servo



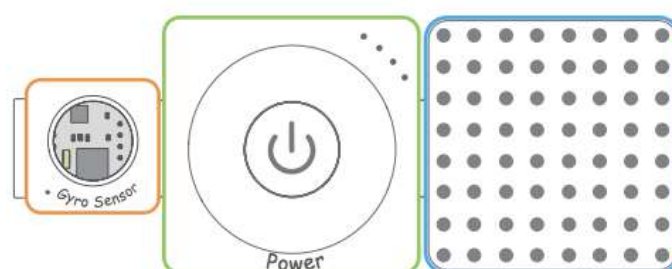
Probeer het volgende uit:



Led panel: 64 rgb leds



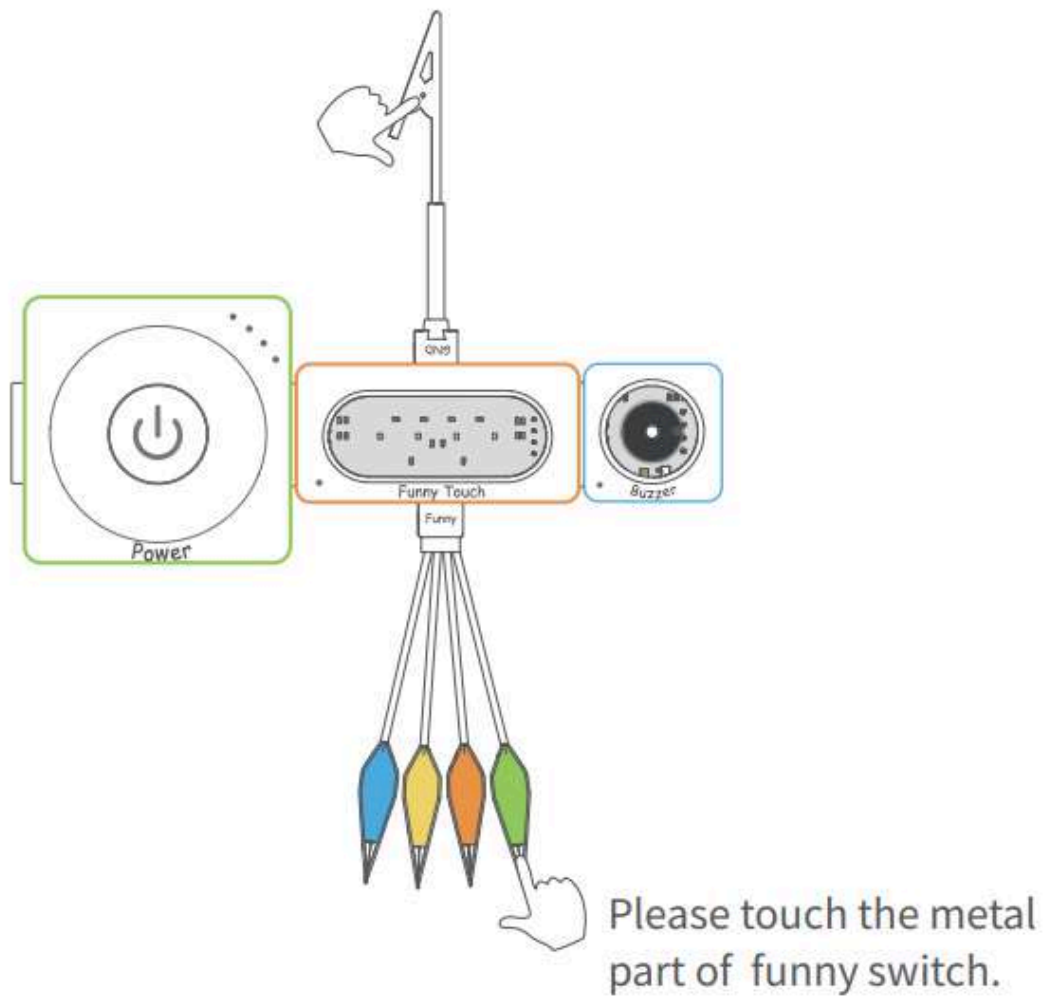
Probeer het volgende uit:



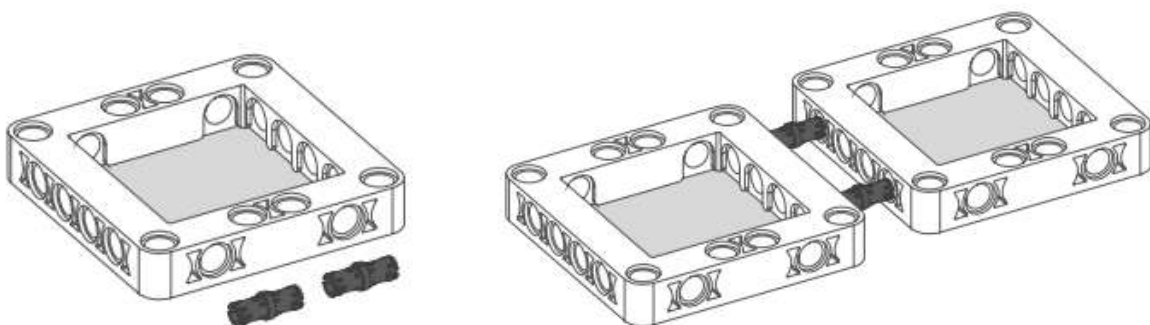
Buzzer



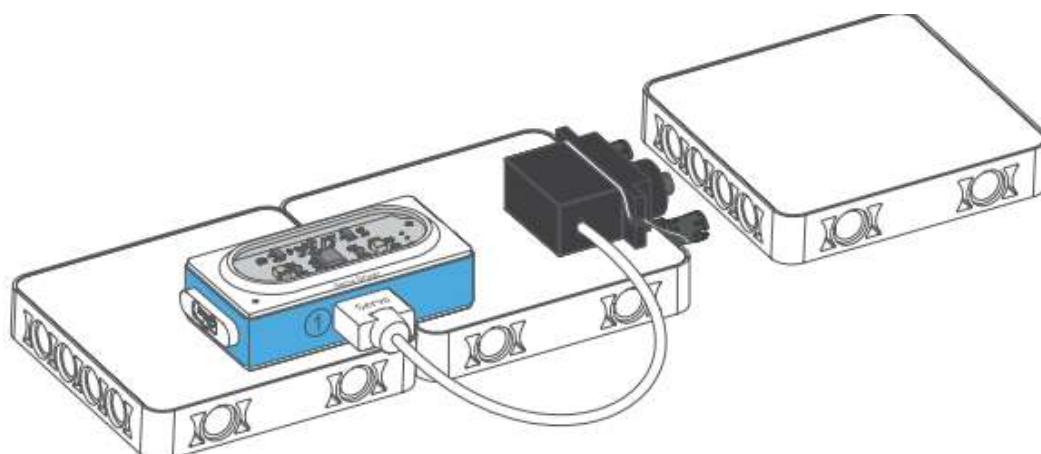
Probeer het volgende uit:



Zo verbind je 2 Neuron borden:



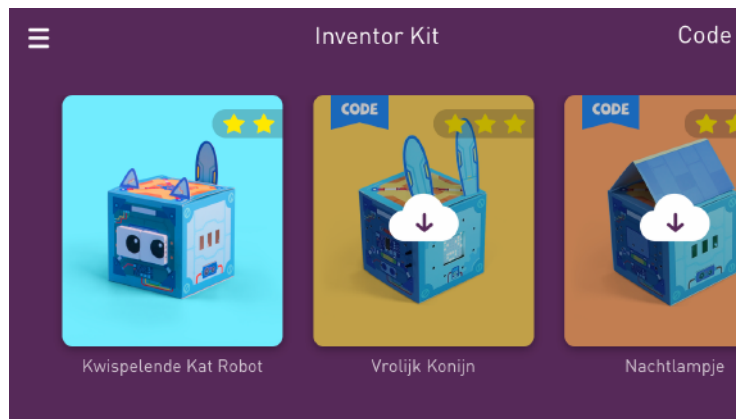
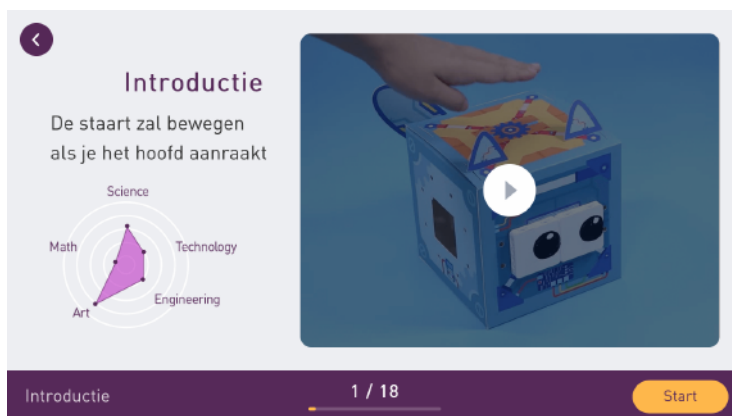
Met elastiekjes kan je het ook vast maken:



Ga nu naar de app (Makeblock Neuron) op je tablet/smart phone.



Kies één van de opdrachten en volg iedere stap op je tablet/smart phone.



De kwispelende kat bestaat uit 18 slides.



Zorg dat ze deze stap met een whiteboard stift uitvoeren!!!

Je kan de gratis mBlock app gebruiken

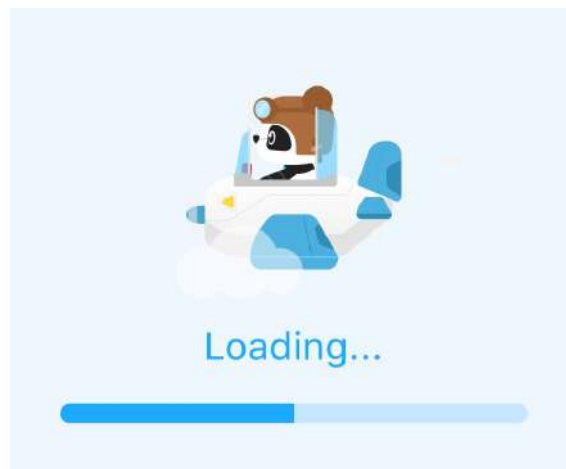


Open de app, klik op **Coding**:

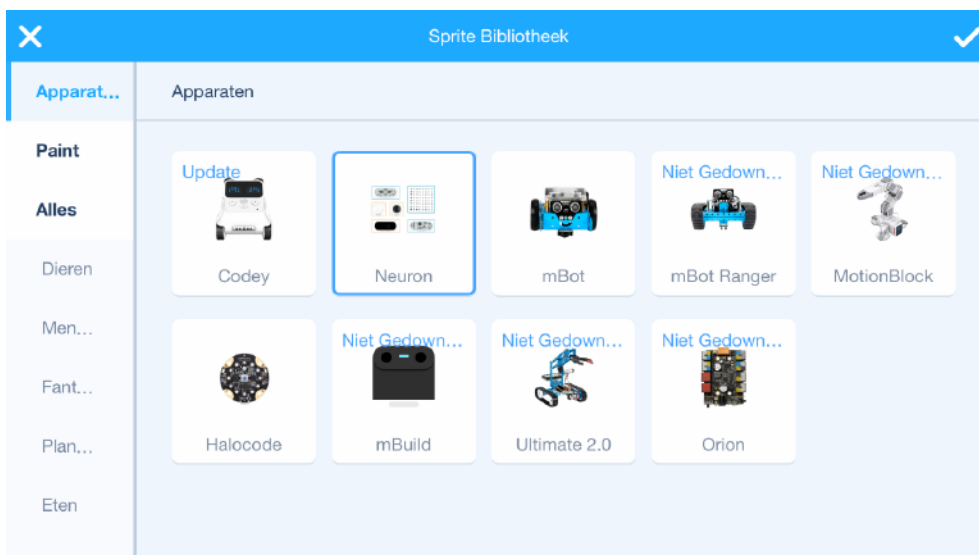


Klik in het midden op de **+**

Het programma gaat nu laden:



Kies dan je apparaat, Neuron en klik rechtsboven op het vinkje.



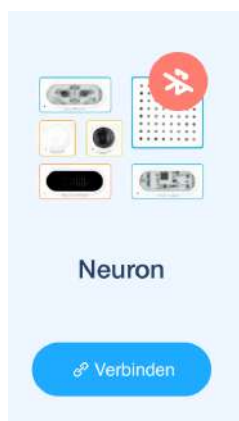
Leg je blokken van Neuron klaar en druk op de powerknop.



Klik in de bovenbalk van je app op het rode bluetooth  teken.



Zet de powerknop van Neuron aan en klik op verbinden

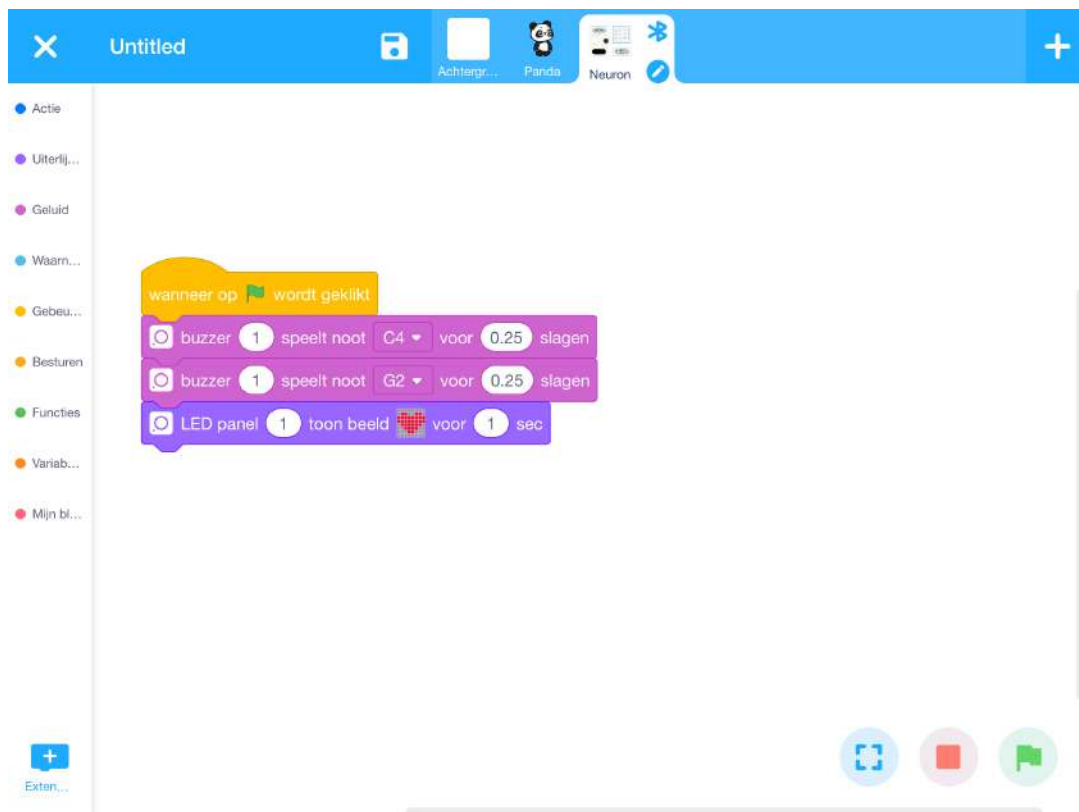


Nu is je Neuron verbonden.



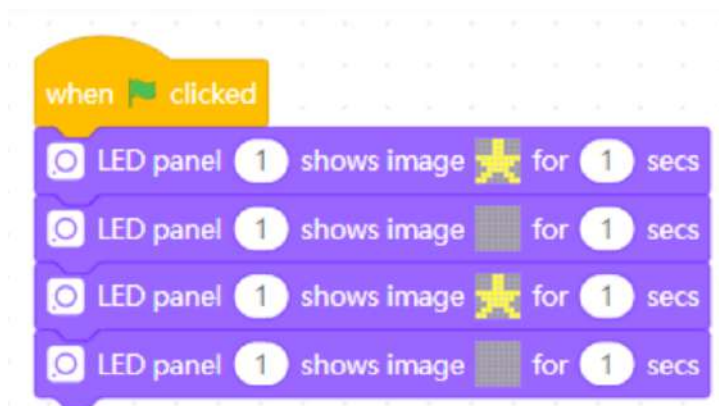
Probeer maar uit:

Je hebt de volgende blokken van Neuron nodig:

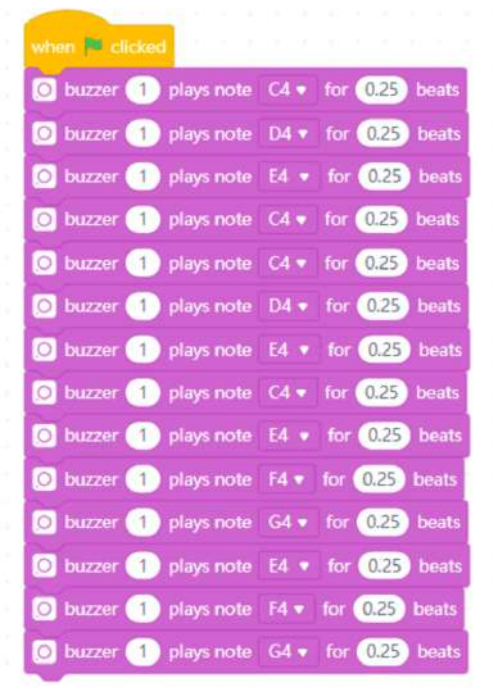
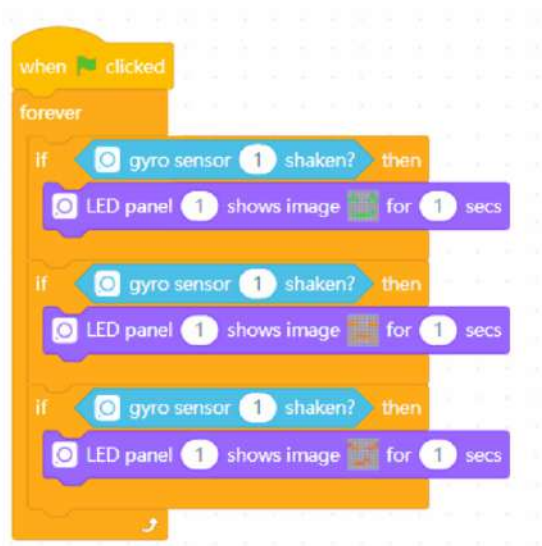


Klik op de groene vlag en je programma start.

Andere voorbeelden



Welk liedje hoor je?



Schud voorzichtig met de gyrosensor.



Qr-code met uitleg-filmpje



Afbeeldingen ter inspiratie:

