
micro:bit

Pauline Maas
@4pip

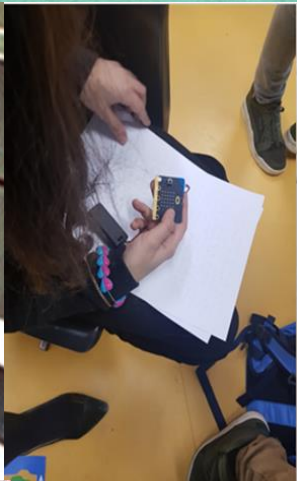


Dé NWT-conferentie voor
het basisonderwijs

**LAAT
NAAR JEKIJKEN**

10 maart 2023
www.nwt-conferentie.nl

nwt
Nederlandse
Wetenschappelijke
Tijdschrift



Inhoud

<p>micro:bit</p> <p>Pauline Maas @4pip</p>		<p>Achtergrond</p> <table><tr><td>2006</td><td>1960</td><td>1973</td></tr><tr><td></td><td></td><td></td></tr><tr><td>Wing Een probleem oplossen met de computer</td><td>Papert Meaningful</td><td>Piaget Zelf uitvinden</td></tr></table>	2006	1960	1973				Wing Een probleem oplossen met de computer	Papert Meaningful	Piaget Zelf uitvinden	<p>micro:bit 2015 - 2023</p>  <p>7 miljoen 60 landen</p>	<p>2015 2017 2023</p>			
2006	1960	1973														
																
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<p>2 lessen</p> <p>Quickstart kaarten met 10 kleine opdrachten waarin ze de basis leren van werken met de micro:bit</p> 	<p>3 lessen</p> <p>Kies 5 projecten van micro:bit101.nl en laat ze in groepen hier aan werken. Ze laten steeds zien wat ze hebben gemaakt.</p> 	<p>5 lessen</p> <p>In groepen werken ze aan met het ontwerp canvas om iets te maken. Dit presenteren ze en geven aan wat anders/beter</p> 	<p>IMPACT micro:bit</p>  <table><tr><td>88%</td><td>85%</td><td>51%</td><td>68%</td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td>Coding is not difficult</td><td>Computer Science more fun for students</td><td>Students expressed learning to use the micro:bit was easy</td><td>Learned about the micro:bit at school</td></tr></table> <p>https://microbit.org/impact/research/</p>	88%	85%	51%	68%					Coding is not difficult	Computer Science more fun for students	Students expressed learning to use the micro:bit was easy	Learned about the micro:bit at school	 <p>Denk groot, begin klein</p>
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<p>Insta @microbit101 www.microbit101.nl Twitter @4pip</p> 																

Achtergrond

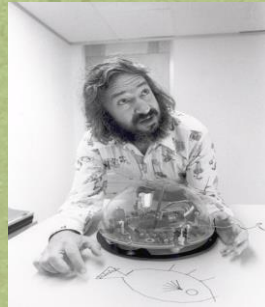
2006



Wing

Een probleem
oplossen met de
computer

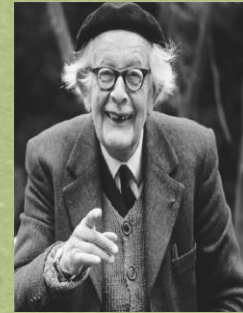
1960



Papert

Meaningful

1973



Piaget

Zelf uitvinden



PO projecten



VO projecten

micro:bit: 2015 - 2023



2015

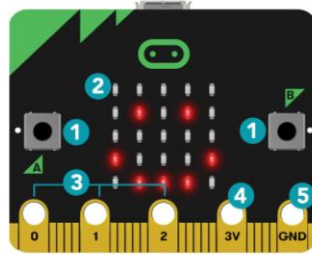
2017

2023

**7 miljoen
60 landen**

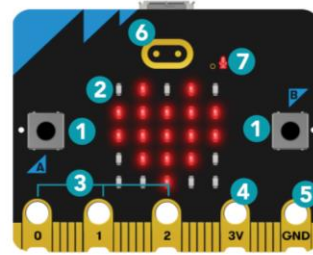
micro:bit V1

micro:bit V2



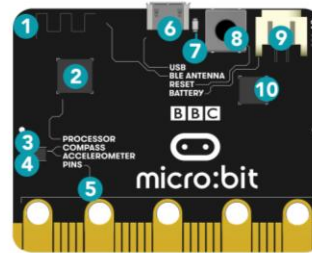
micro:bit V1 - Front

- 1. Buttons
- 2. LED Display
- 3. Pins - GPIO
- 4. Pin - 3 Volt Power
- 5. Pin - Ground



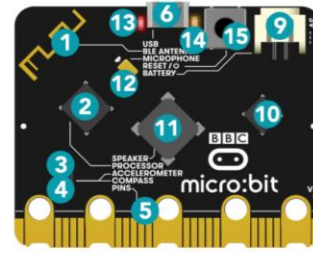
micro:bit V2 - Front

- 1. Buttons
- 2. LED Display
- 3. Notched Pins - GPIO
- 4. Pin - 3 Volt Power
- 5. Pin - Ground
- 6. Gold Touch Logo
- 7. Microphone LED



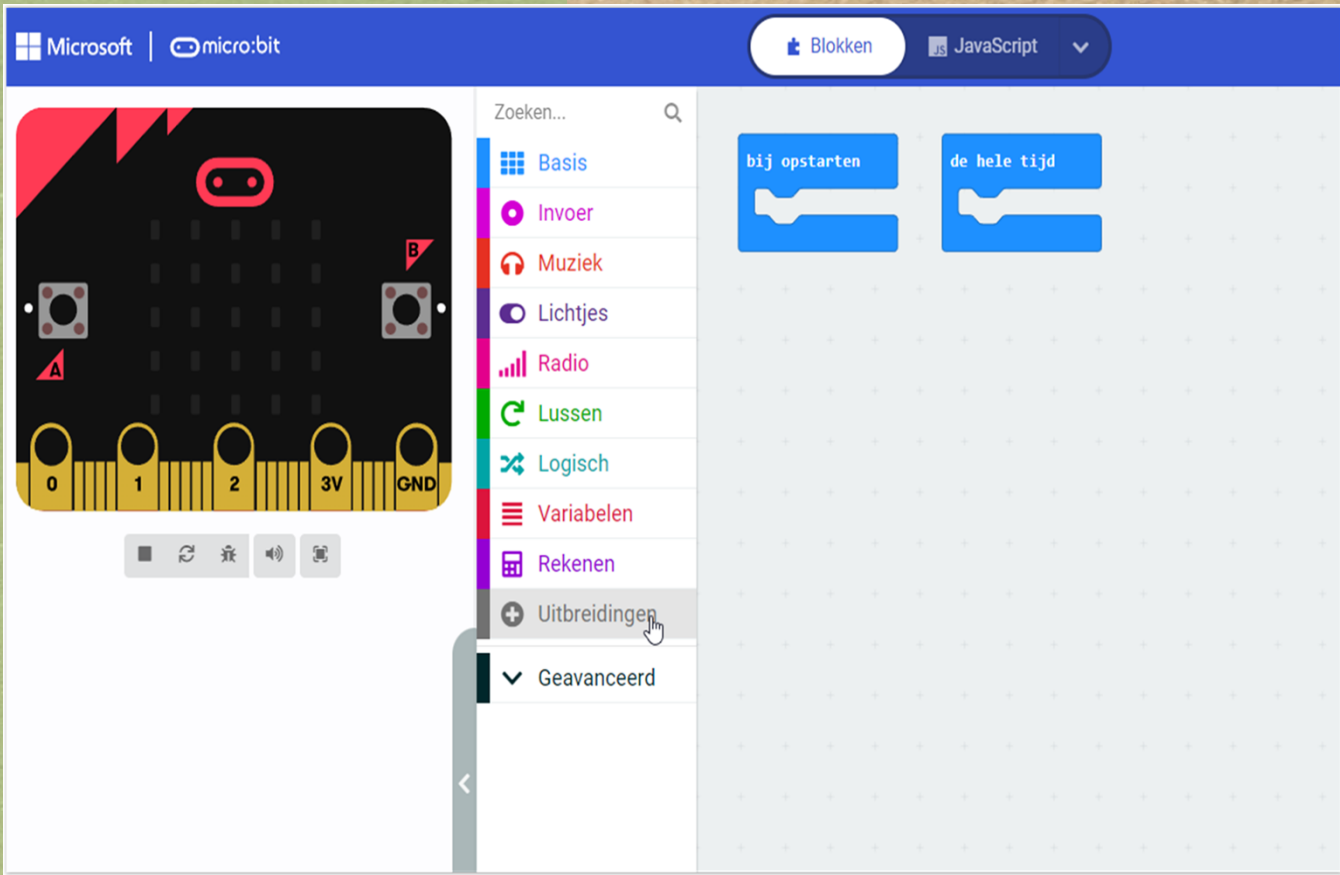
micro:bit V1 - Back

- 1. Radio & Bluetooth Antenna
- 2. Temperature Sensor & Processor
- 3. Compass
- 4. Accelerometer
- 5. Pins
- 6. Micro USB Socket
- 7. Single Red LED
- 8. Reset Button
- 9. Battery Socket
- 10. USB Interface Chip



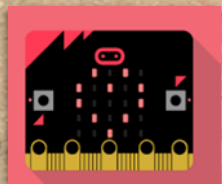
micro:bit V2 - Back

- 1. Radio & Bluetooth Antenna
- 2. Temperature Sensor & Processor
- 3. Compass
- 4. Accelerometer
- 5. Pins
- 6. Micro USB Socket
- 9. Battery Socket
- 10. USB Interface Chip
- 11. Speaker
- 12. Microphone
- 13. Red Power LED
- 14. Yellow USB LED
- 15. Reset & Power button

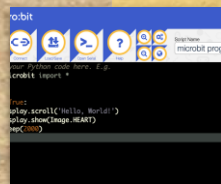


MAKECODE.COM

MakeCode



Python micro:bit



mobile APP



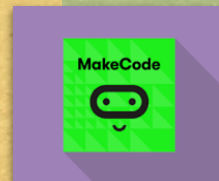
Tinkercad



Scratch



MicroCode



Windows APP



microBlocks

2 lessen

Quickstart kaarten met 10 kleine opdrachten waarin ze de basis leren van werken met de micro:bit



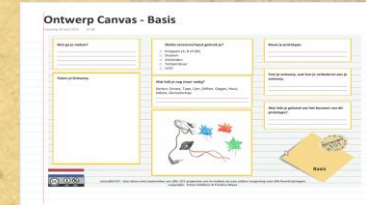
3 lessen

Kies 5 projecten van microbit101.nl en laat ze in groepen hier aan werken. Ze laten steeds zien wat ze hebben gemaakt.

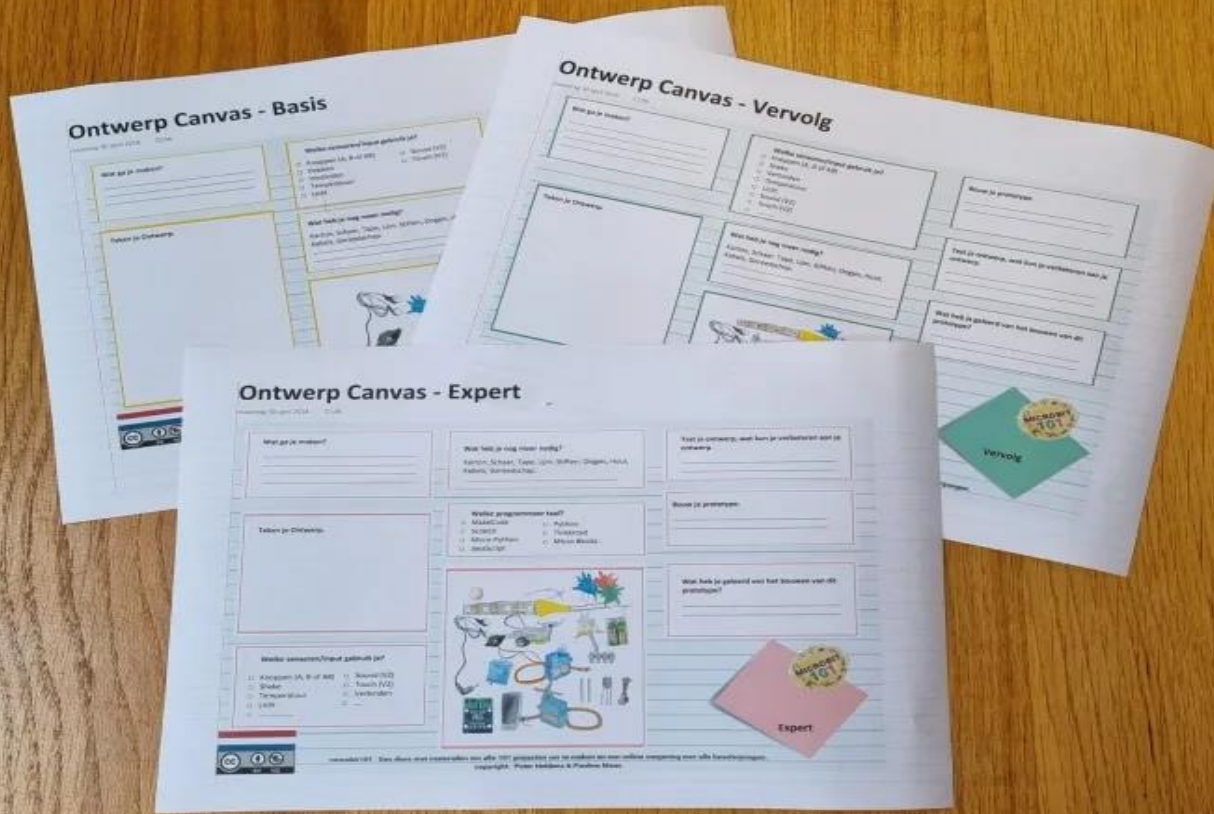


5 lessen

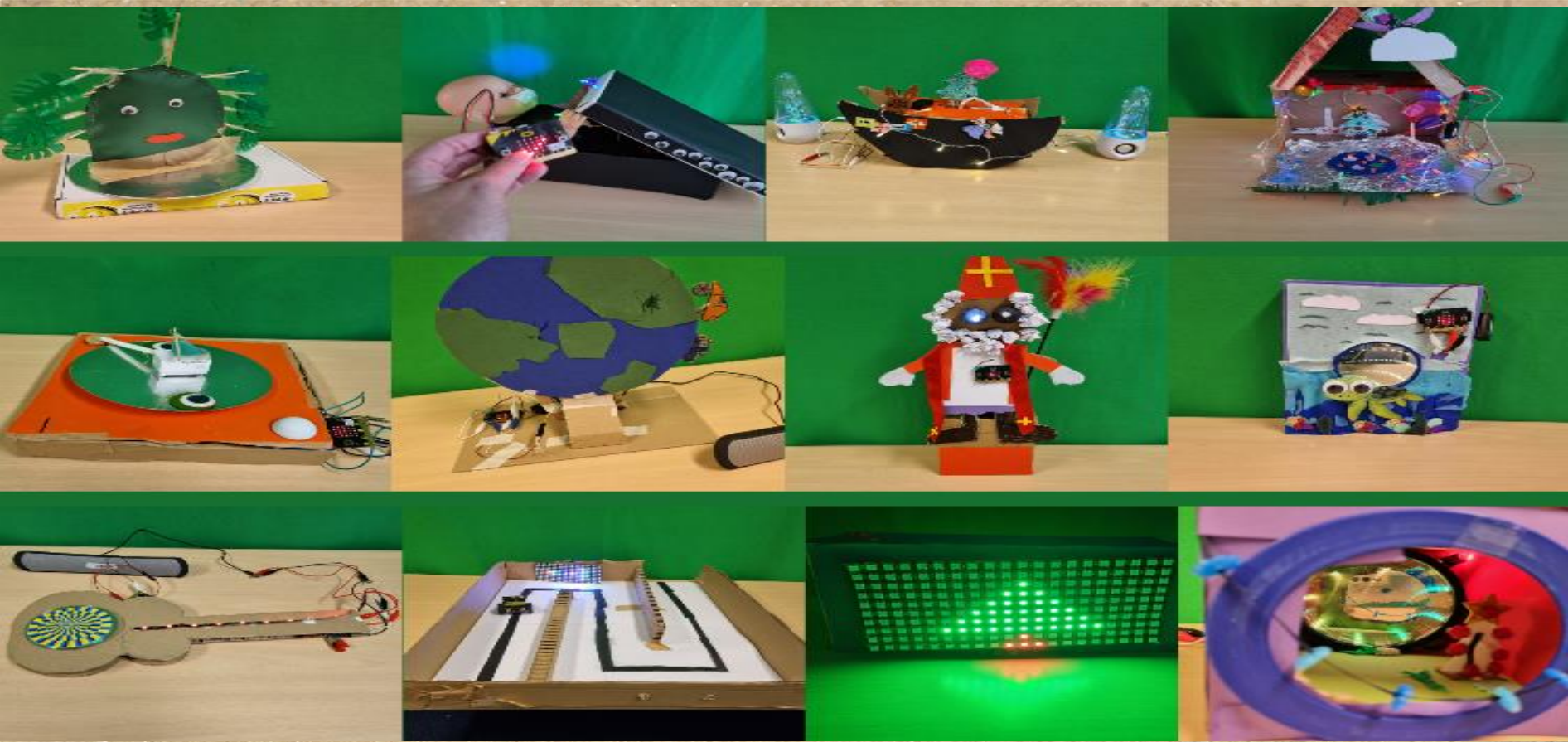
In groepen werken ze aan met het ontwerp canvas om iets te maken. Dit presenteren ze en geven aan wat anders/beter



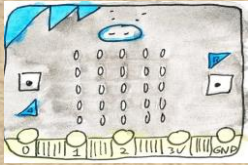
Hoe in de klas - 10 lessen



<https://microbit101.nl/update-ontwerp-canvas/>



Ontwerp Canvas BASIS - 5 lessen



10 micro:bits



40 kabels



10 piëzo/headset



LED-lights

Karton, aluminium, lijm, plakband, vilt, papier, scharen, kerstlampjes, pennen, gereedschap, hout, wielen,

Shopping list

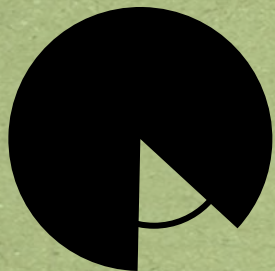


Klassen doosjes

IMPACT micro:bit

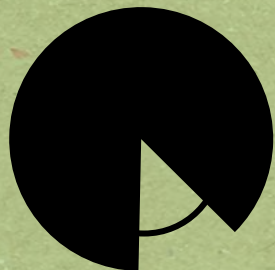


88%



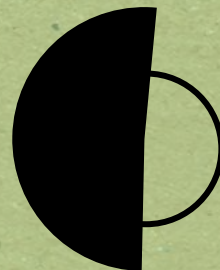
Coding is not difficult

85%



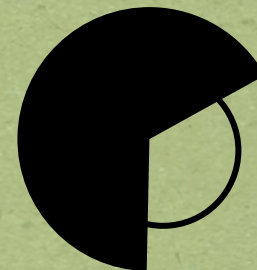
Computer Science more fun for students

51%



Students expressed learning to use the micro:bit was easy

68%



Learned about the micro:bit at school

<https://microbit.org/impact/research/>

DO YOUR BIT CHALLENGE



2000+

More than 1000+ entries in the DYB challenge
Entries

50+

More than 50 countries joined in the competition
Countries

54%

In this DYB competition 54% were girls
Girls

<https://microbit.org/impact/research/>

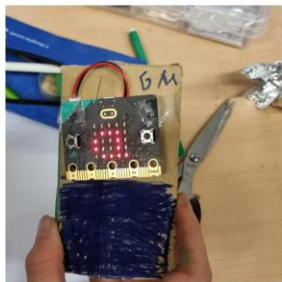
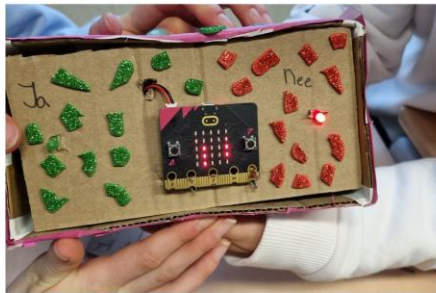
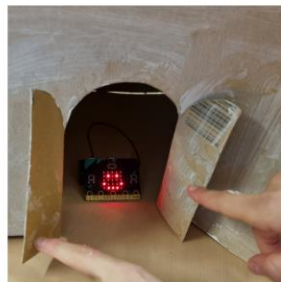
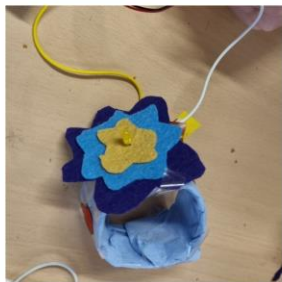
70%

Of the girls said they would choose
Computer Science as a subject

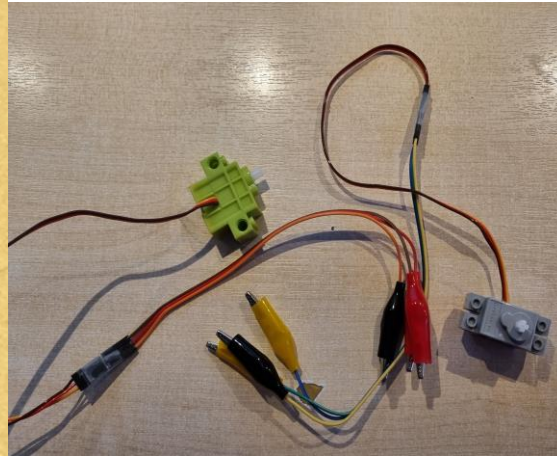
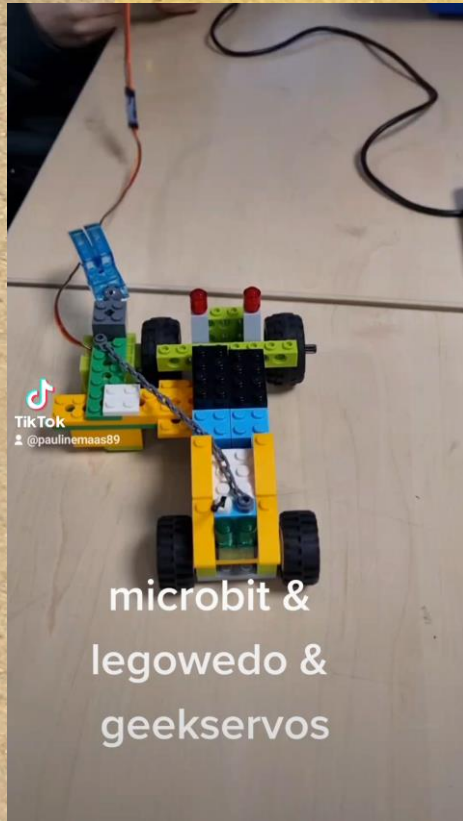
<https://microbit.org/impact/research/>



Denk groot, begin klein



1 dag micro:bit



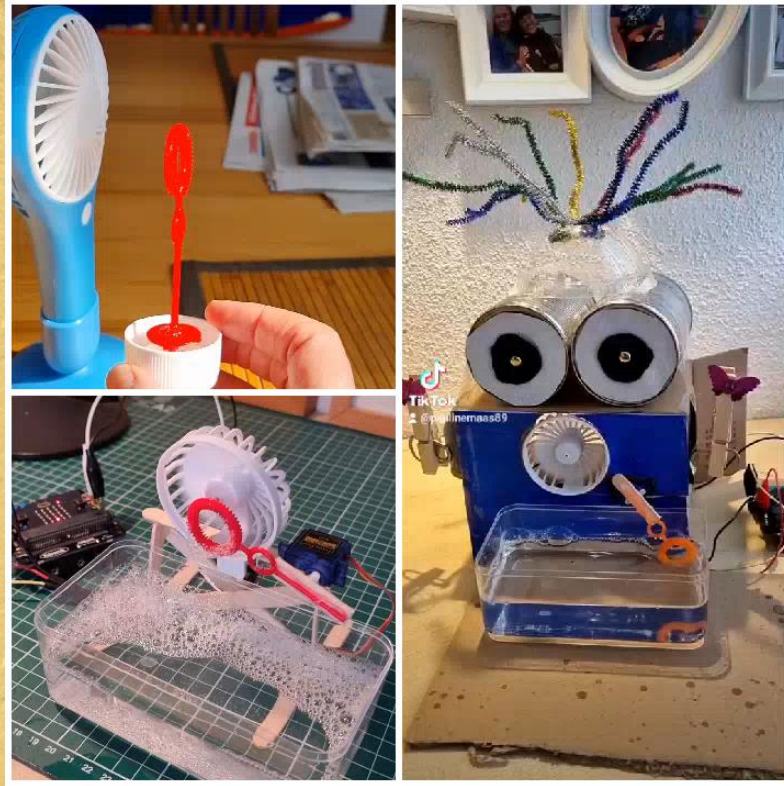
Lego & micro:bit



Inch worms



Milky monsters



Bellen blaas machine



Puppet microbit



#doyourbit challenge



FAIL

[F] **F**IRST

[A] **A**TTEMPT

[I] **I**N

[L] **L**EARNING

First Attempt in Learning

Insta @microbit101

www.microbit101.nl

Twitter @4pip

