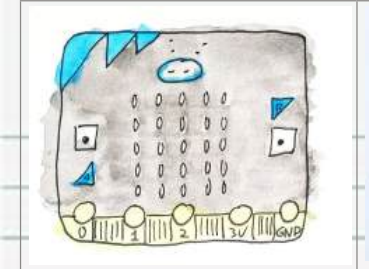
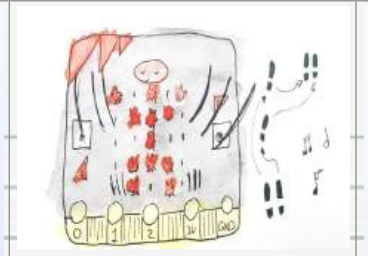
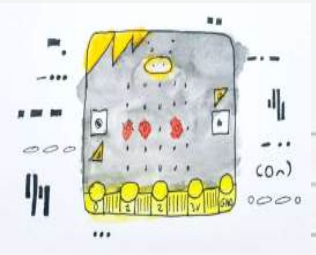
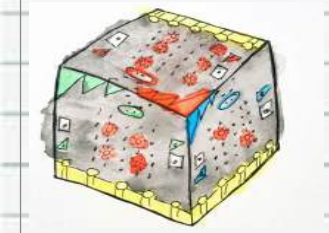
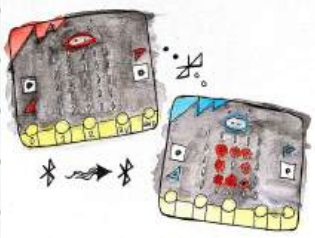
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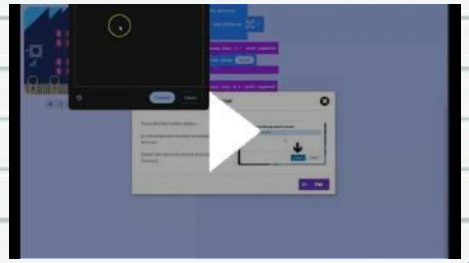
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Card 1 - Name Badge	Card 2 - Song	Card 3- Animation	Card 4 - Morse Code	Card 5 - Touch (V2)	Card 6 - Disco Light (V2)
					
Card 7 - Dice	Card 8 - Fortune Teller	Card 9 - Click Game	Card 10 - Connect	Card t 11 - Secret Code	Card 12 - Bom

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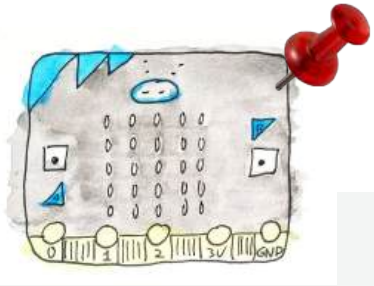
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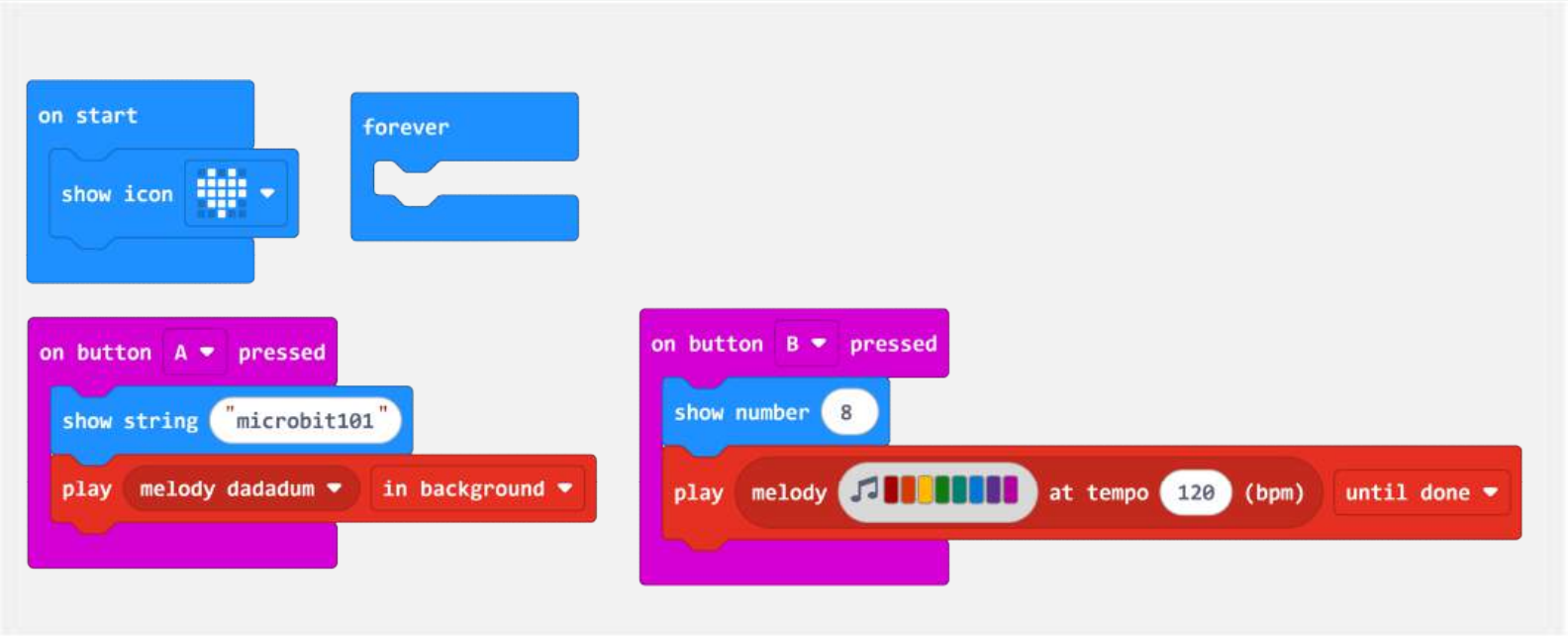
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Card 1 - Name Badge

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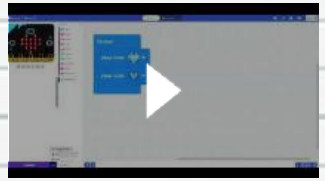




WHAT?
You will take the first steps coding the micro:bit. You will put your name and sounds by pressing button A and B.

www.makecode.com

Downloading Code to micro:bit



EXPLAIN CODE

- ◯ Drag from **Basic**; show **icon** into on **Start**
- ◯ Drag from **Input**; on Button **A pressed**
- ◯ Drag from **Basis**; **show** string into button A pressed
- ◯ Drag from **Music**; **play** under show string
- ◯ Drag from **Input**; on Button **B pressed**
- ◯ Drag from **Basic**; show **number** into button B pressed
- ◯ Drag from **Music**; play **melody** under show string

TIPS

- ◯ All the commands fit together as jigsaw puzzles
- ◯ You can delete a piece code with delete, right mouse

EXTRA

- ◯ Change the name
- ◯ Change the music
- ◯ Choice another icon
- ◯ Try button AB

Link to Code

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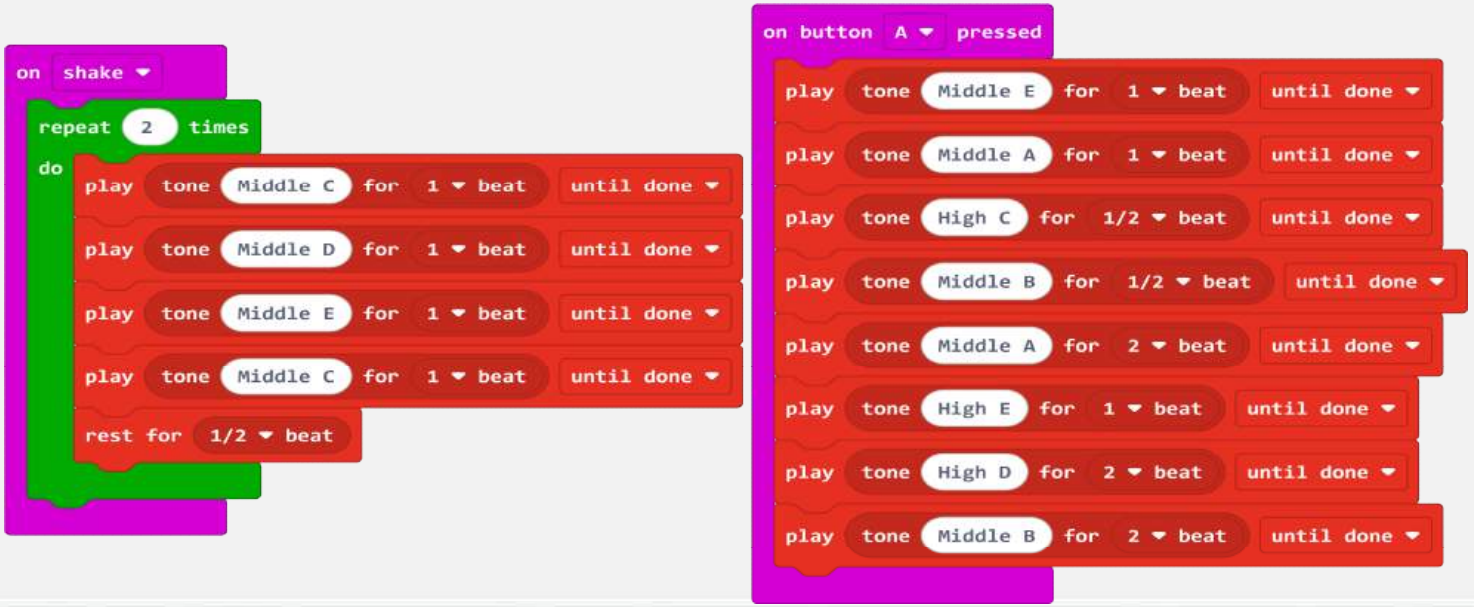
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Card 2 - Song

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WHAT?
You will make a little song, and see how you can use the loop. Or you can make the Harry Potter song.

www.makecode.com

EXPLAIN CODE

- ◯ Delete on **start** and **forever** block
- ◯ Drag from **Input**; on **shake**
- ◯ Drag from **Loops**; **repeat** 4 times (change to 2 times)
- ◯ Drag from **Music**; **play** tone
- ◯ **Right mouse**; **copy** play tone, change to middle D etc
- ◯ Drag from **Input**; on button **A pressed**
- ◯ Drag from **Music**; **play** tone and make the harry potter song

TIPS

- ◯ **Right** mouse, you can copy a block
- ◯ Click on the **micro:bit logo**, you start a **new** project

EXTRA

- ◯ Make your own music piece on Button AB
- ◯ What happens when you don't use the rest?
- ◯

Link to Code

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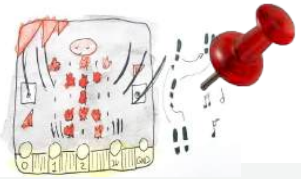
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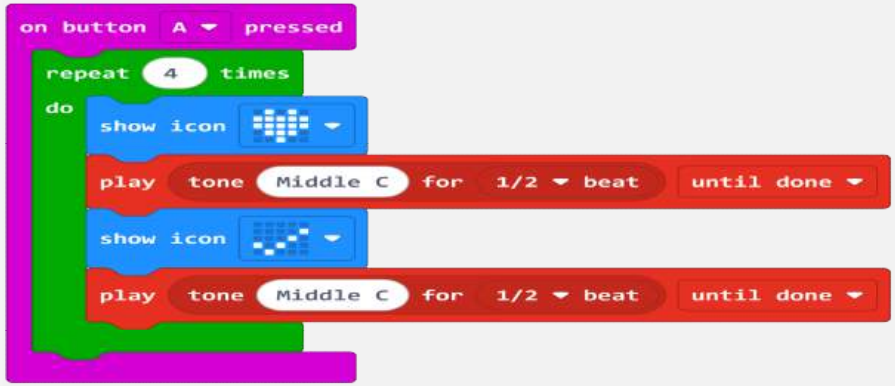
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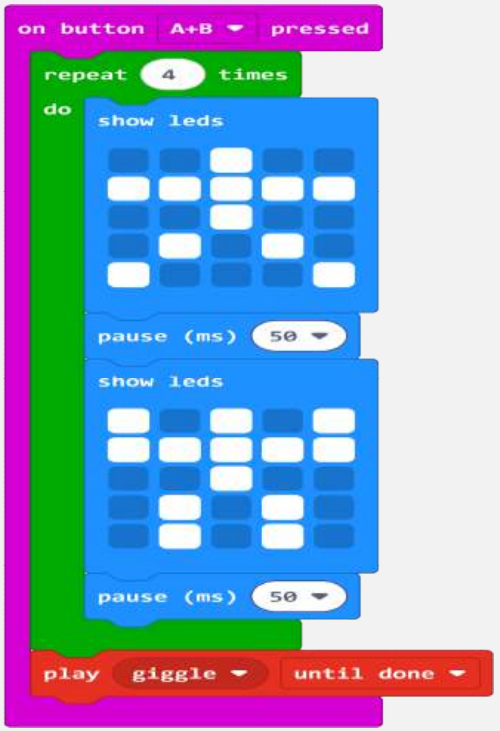
Card 3 - (Own) Animation

Link to Code

woensdag 30 juli 2025 22:37







WHAT?
You will make your own animation (ticking hart) and add sounds. You make your own animation with the block show leds.

www.makecode.com

EXPLAIN CODE

- ◯ Drag from **Input**; on button **A pressed**
- ◯ Drag from **Loops**; **repeat** 4 times
- ◯ Drag from **Basic**; show icon (choose hart)
- ◯ Drag from **Music**; **Play** (tone Middel 1/2 beat)
- ◯ **Copy** the last 2 items (**right** mouse click)
- ◯ Change the **hart** for a **small hart**

TIPS

- ◯ 50 ms is 0,05 seconds.
- ◯ Calculation site from milliseconds to seconds

EXTRA

- ◯ Make your own animation with the show leds block.
- ◯ Add an extra block pause with onlly 50 ms.
- ◯ Drag play giggle from the Music blocks under the repeat
- ◯ You can also make rain, or a rocket
- ◯ You can use more show leds.

Link to Code

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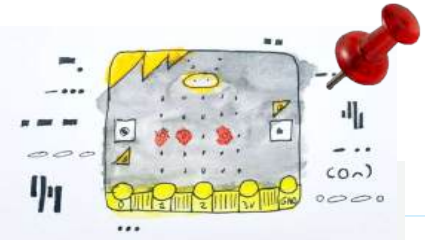
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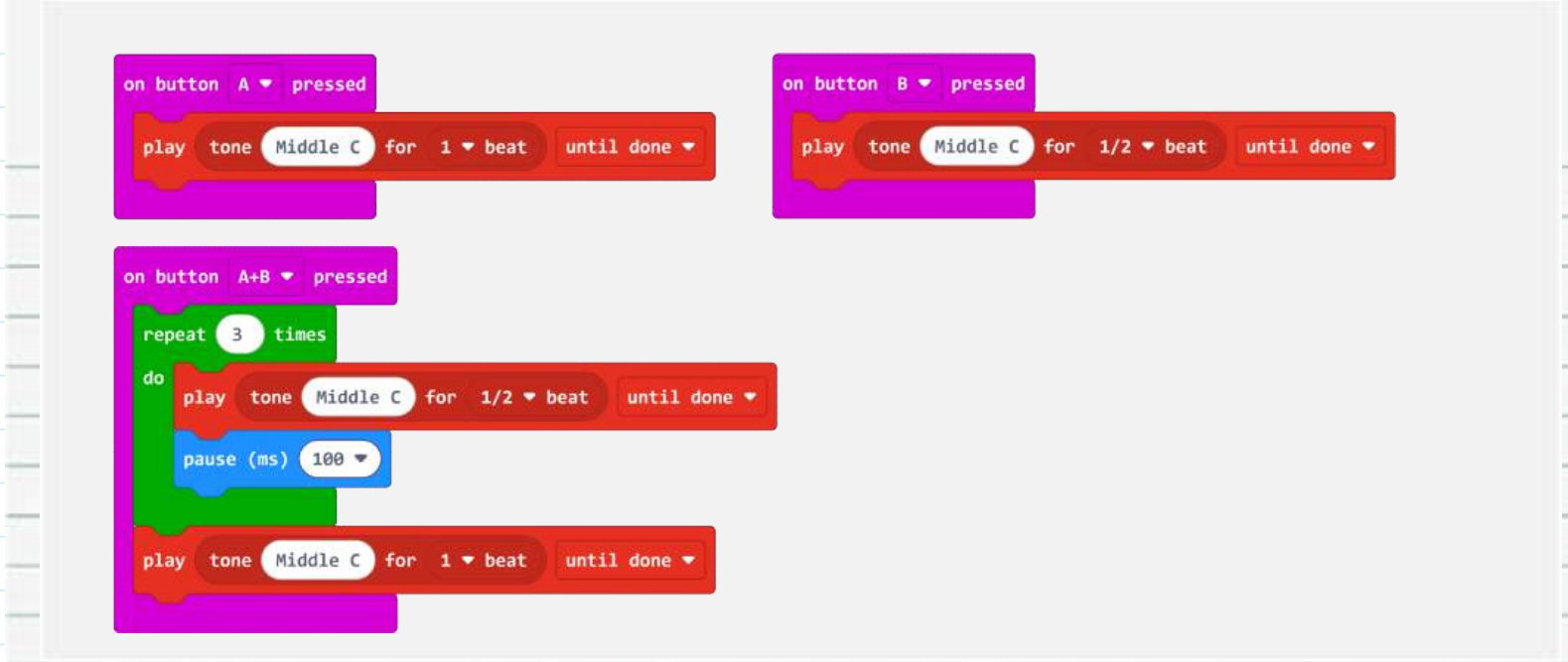
Card 4 - Morse Code

Link to Code

woensdag 30 juli 2025 22:37



WHAT?
You will make morse code with the micro:bit. So you can send morse code to each other.



www.makecode.com

Morse Code of Beethoven | Classical Music Did You Know | Hobuco



EXPLAIN CODE

- ◯ Drag from **Input**; on button **A pressed**
- ◯ Drag from **Music**; **Play** (tone Middel C 1 beat)
- ◯ **Copy** the block **button A pressed** (right mouse)
- ◯ **Paste** this, change A into **B**
- ◯ **Change** 1 beat to **1/2 beat**
- ◯ Drag from **Input**; on button **A pressed**, change to **AB**
- ◯ Drag from **Loop**, **repeat** 4 times, change to 3
- ◯ Drag from **Music**; **Play** tone Middel C, change beat to 1/2
- ◯ Drag from **Basic**; **pause**
- ◯ **Copy** play tone; **paste** this under the loop. Change 1/2 to **1 beat**

TIPS

- ◯ You can look for a command in the search above Basic
- ◯ A list of the international Morse Code
- ◯ Did you know that the start of Beethoven number 5 starst with 3 times short and 1 time long. That is V for victory. In the second World War, this music piece was forbidden to be played by the Nazi's.

EXTRA

- ◯ Send you own secret code in morse code to each other
- ◯ Put a word morse under the shake input

Link to Code

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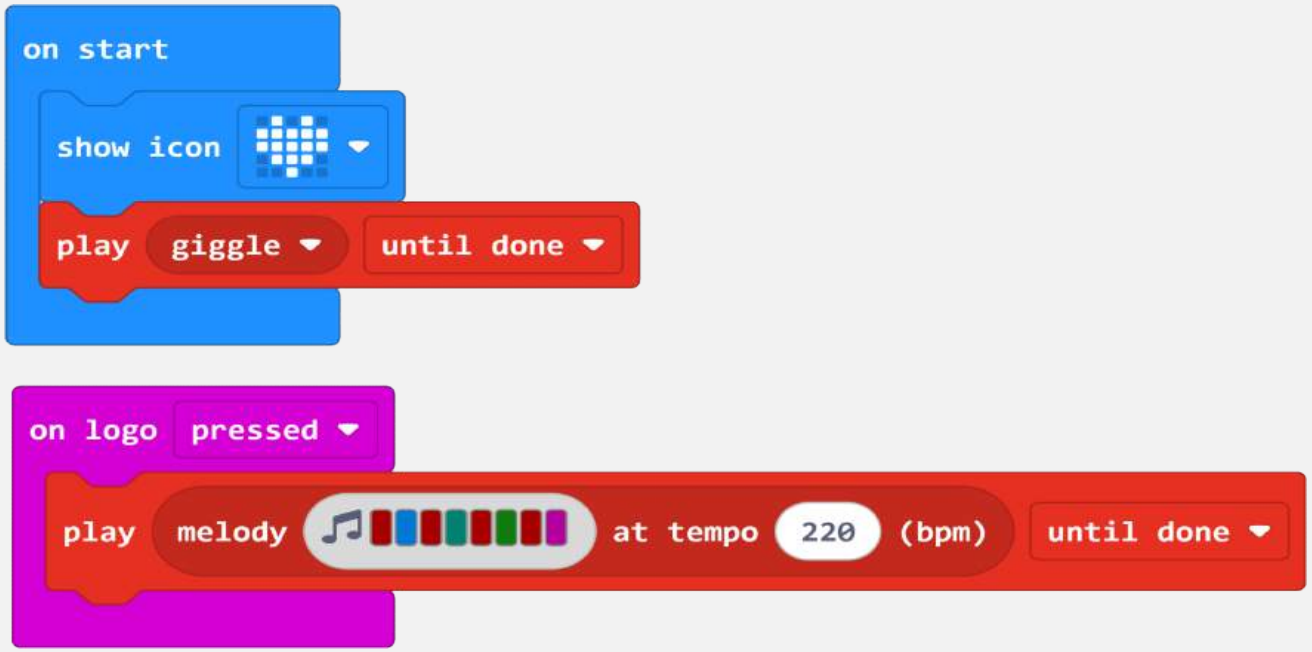
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Card 5 - Touch Sensor (V2)

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WHAT?
You will now use the touch sensor on the micro:bit and make music with the melody editor.

www.makecode.com

EXPLAIN CODE

- Drag from **Basic**; show icon and pick an icon
- Drag from **Music**; **play giggle** (all the way down to V2 (version 2 micro:bit)
- Drag from **Input**; on button **A pressed**
- Drag from **Music**; **Play** melody, and make your own melody
- Play around with the tempo bpm (beats per minute)

TIPS

- The special blocks for Version 2 micro:bit are all the way down
- If you use V2 sounds, error 927 will show on your micro:bit
- Sometimes you have to make you finger a little wet

EXTRA

- Change the sounds
- Can you change until done, that the sounds is there the whole time?
- With beats per minute you can change the tempo of the music

Link to Code

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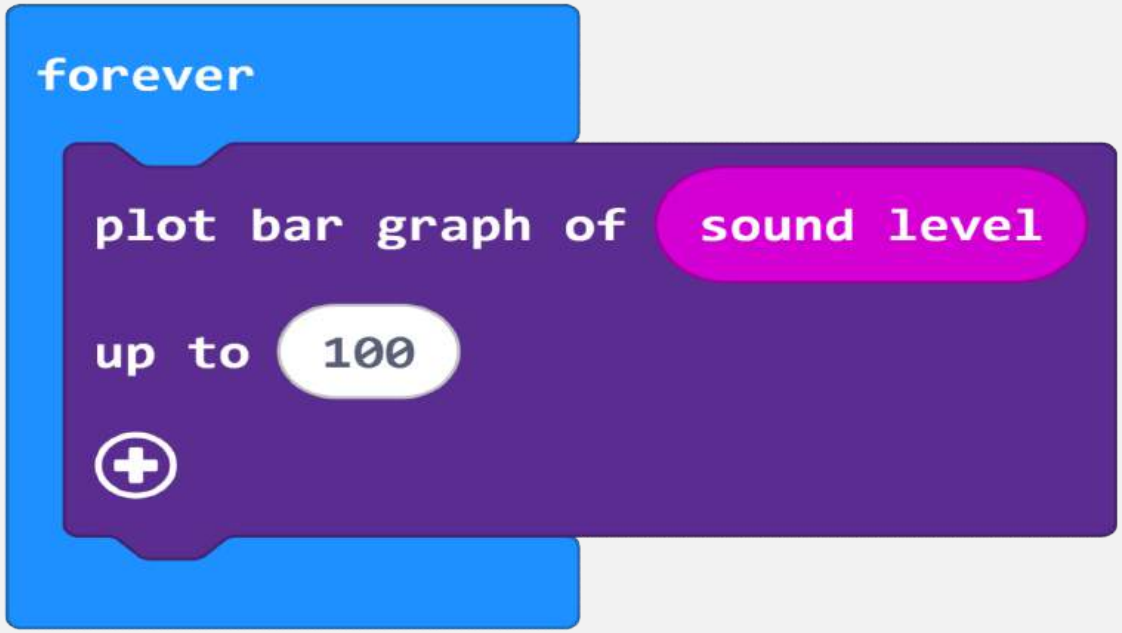
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Card 6 - Disco Lights (V2)

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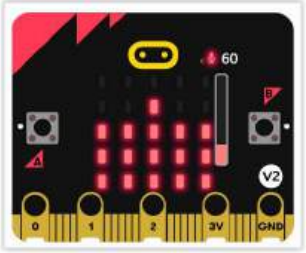




WHAT?
You will now use the sound level from the micro:bit. That is a new sensor on the V2.

www.makecode.com

A small extra LED will turn be on next to the logo, that is the sound sensor from te micro:bit.



EXPLAIN CODE

- ◯ Drag from **Basic**; **forever** block
- ◯ Drag from **Led; plot bar** into the **forever** block
- ◯ Drag from **Input**; sound level (down V2 sensor) into the 0 of plot bar
- ◯ Change the 0 from up to into 100
- ◯ Scream very loud towards the micro:bit…
- ◯ Put on a youtube song

TIPS

- ◯ You can see a small LED extra on next to the logo, that is the sound sensor
- ◯ As it is sometimes loud in a classroom, easier to use 100
- ◯ Put on a youtube song, and see the LED's on the micro:bit danse

EXTRA

- ◯ Change the sound level into light level, shine light on your micro:bit
- ◯ Change the sound level into temperature, blow to the micro:bit

Link naar de Code

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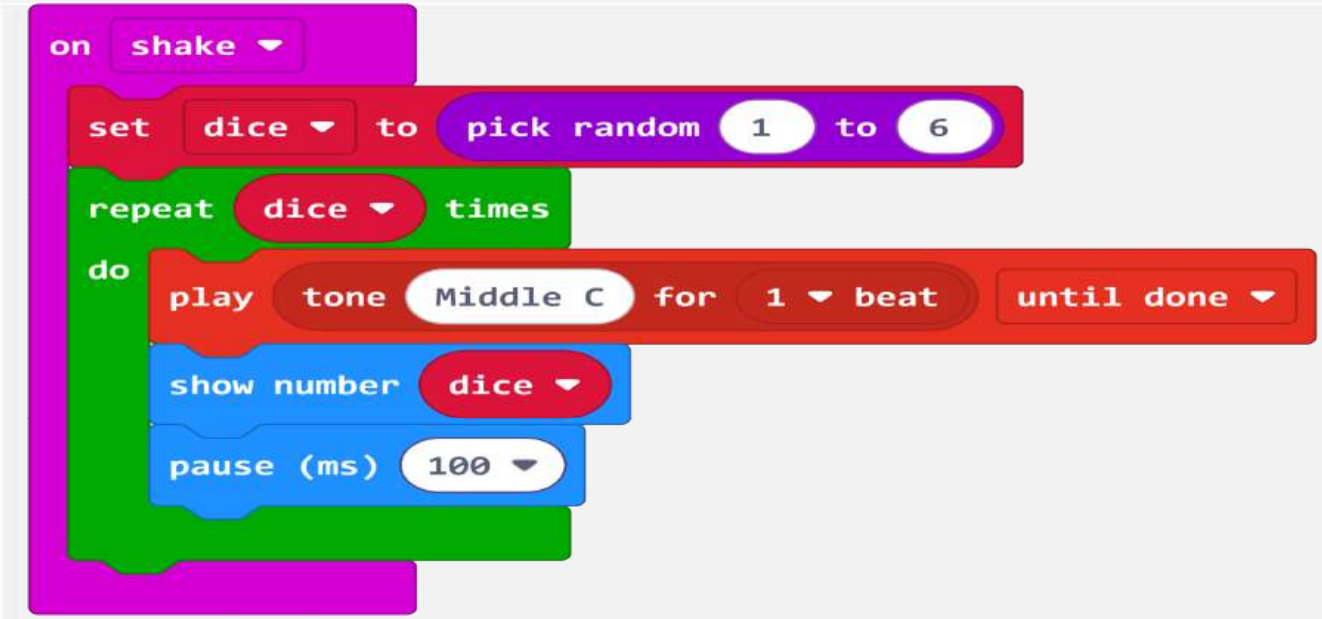
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Card 7 - Dice

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Link naar de Code





WHAT?
You will make a dice with the micro:bit with sound.

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EXPLAIN CODE

- ◯ Drag from **Input**; on **shake** block
- ◯ Drag from **Variable; make** a variable **dice**
- ◯ Drag from **Variables**; **set dice** to 0 in the shake block
- ◯ Drag from **Math**; **pick random** 1 to 10 into set dice
- ◯ **Change** the 0 to 10 to **1 to 6**
- ◯ Drag from **Loops**; **repeat** 4 times
- ◯ Drag from **Variables**; **dice** into the 4
- ◯ Drag from **Music**; play tone
- ◯ Drag from **Basic**; **show number**, **change** the 0 into **dice**
- ◯ Drag from **Basic**; pause 100

TIPS

- ◯ A variable are for instance: colours, ages, countries etc.
- ◯ If you use a variable, it is easy to code you program
- ◯ In a game score or time is a variable

EXTRA

- ◯ You can chance the tone
- ◯ Make a dice with 13 sides
- ◯ Change the pause

Link naar de Code

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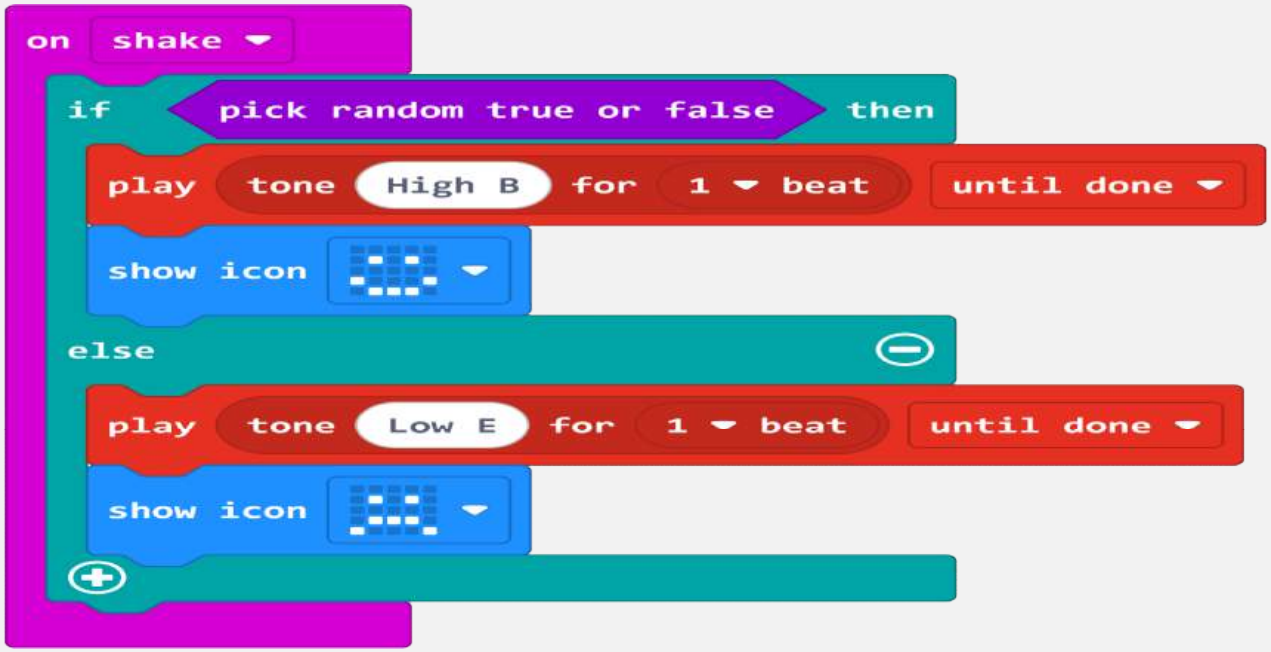
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Card 8 - Fortune Teller

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WHAT?

You are going to make a fortuneteller. You can ask a question and if you shake the micro:bit he will give you the answer.

www.makecode.com

EXPLAIN CODE

- Drag from **Input**; on **shake** block
- Drag from **Logic**; if true then else in the shake block
- Drag from **Math**; **pick random** true of false **into true** field
- Drag from **Music**; **play** tone and pick a **high** tone
- Drag from **Basic**; **show** icon and pick a **happy** face
- **Copy play** tone; **paste** it in the **else** part, **change** the tone in a **low** tone
- **Copy show** icon, **paste** this under the low tone, **change** into **sad** face

TIPS

- The if then else block you use often. Walk untill you see a wal.
- When you don't have not lives anymore, you are dead etc.

EXTRA

- You can chance the show icon into an animation
- Change the play tone into a play a happy or sad melody

Link naar de Code

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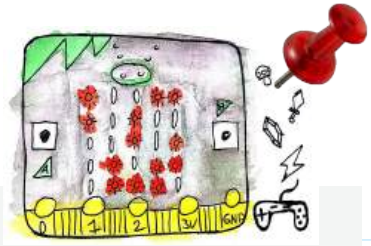
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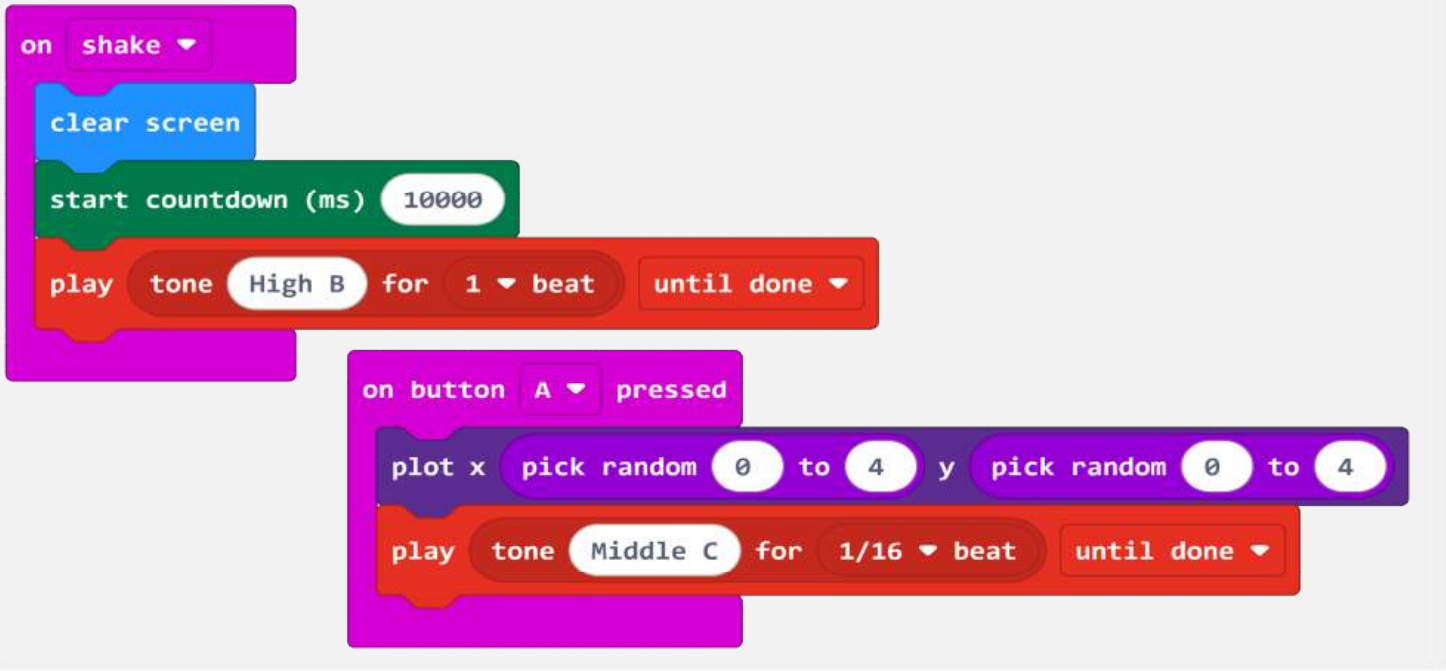
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Card 9 - Click Game

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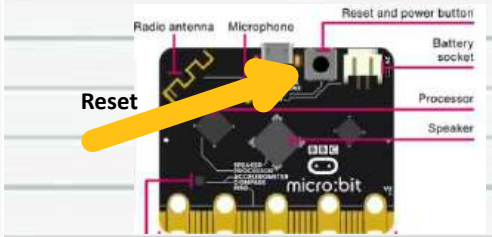




WHAT?

Now you are going to make a simple klick game with sounds. Klick on button A and a LED light will go on and you hear a sound. When you fill all the LED's before the time is over you win. You can play this against each other. Or you can hack the game….

www.makecode.com



EXPLAIN CODE

- ◯ Drag from **Input**; on **shake** block
- ◯ Drag from **Basic**; **clear** screen
- ◯ Drag from **Games** (**Advanced** blocks); start **countdown**
- ◯ Drag from **Music**; **play** tone and pick a **high** tone
- ◯ Drag from **Input;** on button **A pressed**
- ◯ Drag from **Led**; plot **x y** into the button **A pressed**
- ◯ Drag from **Math**; pick **random**, put this in random **x= 0** (change to **0 to 4**)
- ◯ **Copy** this **random block** and put it in the **y=0**
- ◯ Drag from **Music**; **play** tone and change to **1/16** beat

TIPS

- ◯ If you shake the micro:bit, he will clear the screen, start a countdown, when you her the tone, you can start press A to play the game
- ◯ Play it against somebody else. Start at the same time
- ◯ **When the game is finished, you have to press the reset button at the back**

EXTRA

- ◯ How can you add more LED's when you press A?
- ◯ What will happen when you pick random 0-10?
- ◯ You can change the countdown, more time to play

Link naar de Code

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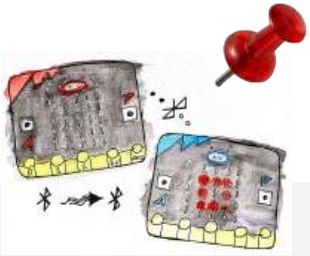
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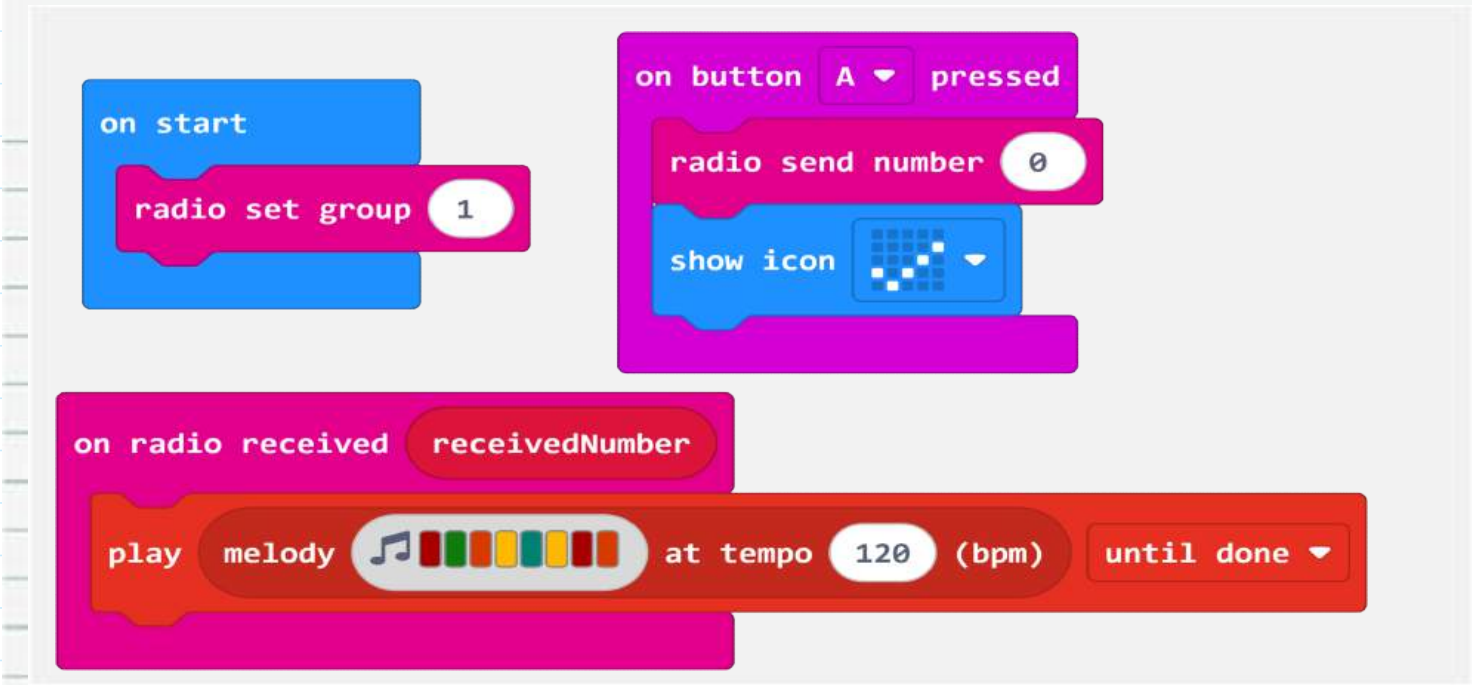
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Card 10 - Connect

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WHAT?
Now You learn how you can connect 2 micro:bits. They have to be on the same radio group. There are 256 different radio groups. The distance can be 60 meter.

www.makecode.com

EXPLAIN CODE

- ◯ Drag from **Radio**; **radio** set **group** into the on start block
- ◯ You can **choose** from **1** to **255** radio group, make **pairs** and **pick** your **number**
- ◯ Drag from **Input;** on button **A pressed**
- ◯ Drag from **Radio**; **radio** send **number** 0 into the butten A block
- ◯ Drag from **Basic**; show **icon** and pick a **V**
- ◯ Drag from **Radio;** on **radio received**
- ◯ Drag from **Music**; play **melody** into this block and pick a melody
- ◯ **Put this code on 2 micro:bits, and connect**

TIPS

- ◯ Make pairs, and pick your radio channel (1 to 255)
- ◯ You can send more different numbers to control for instance a car with a micro:bit in there.

EXTRA

- ◯ Change a button
- ◯ Send something by shake the other micro:bit
- ◯ Can you now hack the game (Card 9)?

Link naar de Code

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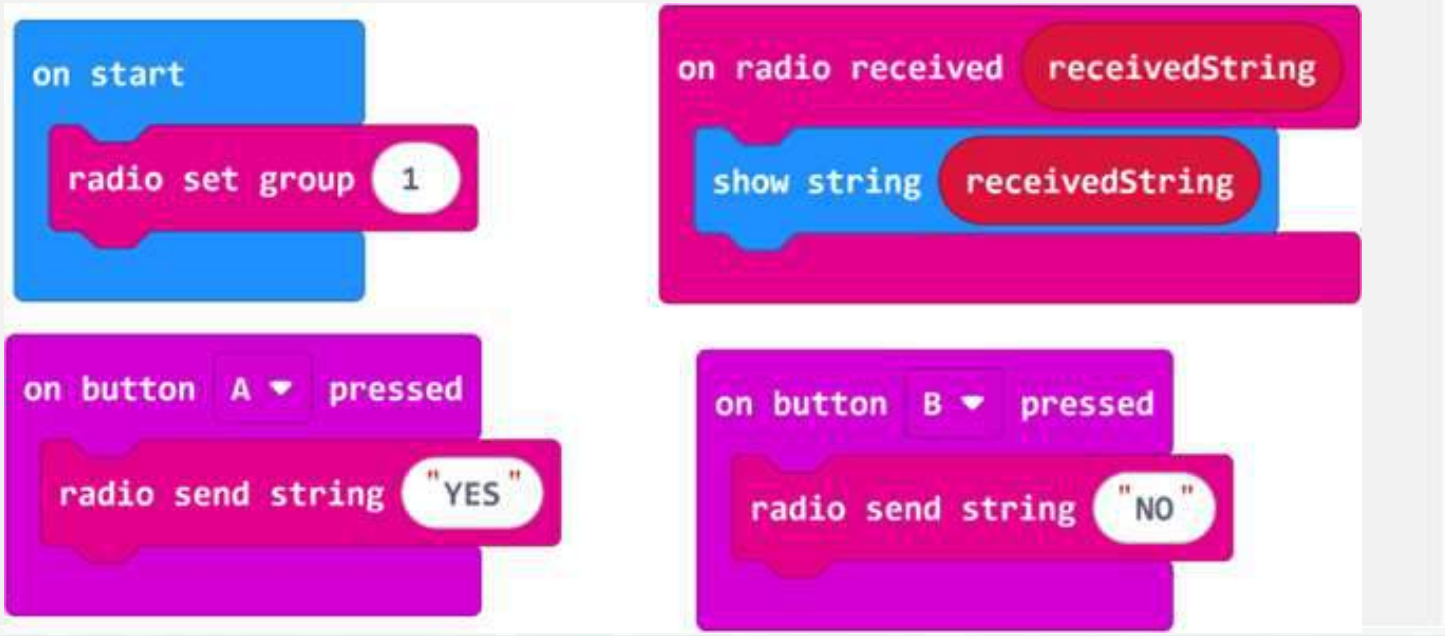
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Card 11 - Secret Code

Link naar de Code

woensdag 30 juli 2025 22:37





WHAT?

As you saw in Card 11,you can connect micro:bits and send a number. You can also send a text, then you can send a secret code to each other.

www.makecode.com

EXPLAIN CODE

- ◯ Drag from **Radio**; **radio** set **group** into the on start block
- ◯ You can **choose** from **1** to **255** radio group, make **pairs** and **pick** your **number**
- ◯ Drag from **Input;** on button **A pressed**
- ◯ Drag from **Radio**; radio **send string** and change it into **YES**
- ◯ **Copy** on button A **pressed**, **Paste** it
- ◯ Change it on button B pressed and the string in **NO**
- ◯ Drag from **Radio;** on **radio received received string**
- ◯ Drag from **Basic; show string** into it, drag **ReceivedString** into "hello"
- ◯ **Put this code on 2 micro:bits, and connect**

TIPS

- ◯ Make pairs, and pick your radio channel (1 to 255)
- ◯ Now you can send secret message to each other

EXTRA

- ◯ What other words can you send?
- ◯ Try how far away you can stand
- ◯ Can you connect more micro:bits on the same group?

Link naar de Code

QuickStart EN
July 2025

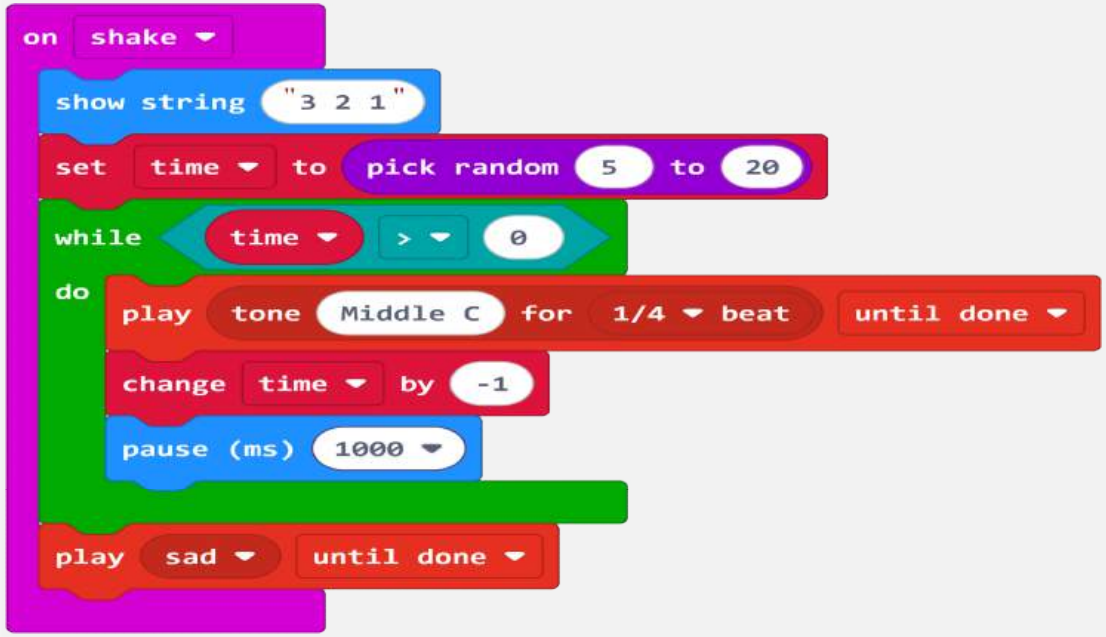
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Card 12- Bom

Link naar de Code

woensdag 30 juli 2025 22:37





WHAT?
Do you know the game "Hot Potato" with a time “bom” in your box. You have to hand it to the other in a circle when the “bom” explode you loose.

www.makecode.com

EXPLAIN CODE

- ◯ Drag from **Input;** on **shake**
- ◯ Drag from **Basic**; show **string** and change it into "**3 2 1**"
- ◯ Go to **Variables**; **make** a variable **time**
- ◯ Drag from **Variables**; **set time** under show string
- ◯ Drag from **Math**; **pick random** and change it into 5 to 20
- ◯ Drag from **Loops**; **While** do
- ◯ Drag from **Logistic**; **0 > 0** into the **while do**
- ◯ Drag from **Variable**; **time** into the first **0**
- ◯ Drag from **Music**; **play** tone in the **while** do and change **the beat to 1/4**
- ◯ Drag from **Variables**; **change time** and change it to **-1**
- ◯ Drag from **Basic**; **pause** 1000
- ◯ Drag from **Music**; play **giggle** (V2 music) and change it to **sad**

TIPS

- ◯ The block play sad, must be under while do, that is the music that comes when the bom explodes
- ◯ Can you change the pause also in random?
- ◯ Can the play tone change, when the bom almost explodes

EXTRA

- ◯ Make LED on the micro:bit, is the more exiting yes or no?
- ◯ What happens when you set the first random on 0?
- ◯ Why don't we use the game block, count down?

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Link to this online OneNote

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