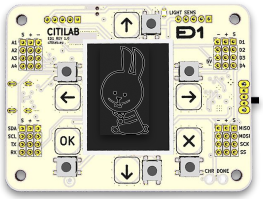
Connect the ED1 board 1

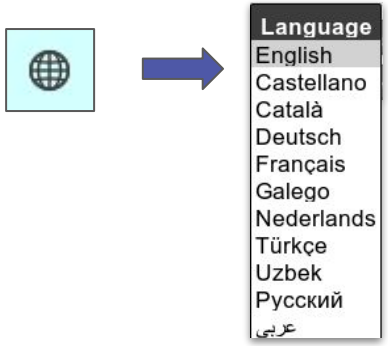
Visit www.microblocks.fun and download MicroBlocks, it's free!

Plug the board to the computer using USB cable.



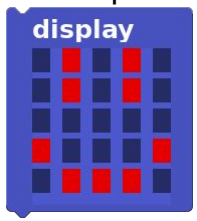
In the upper left corner of the MicroBlocks screen there is a USB icon. When the board is connected the USB icon will set green, indicating that it is connected.

Before starting, change the language by clicking the world icon and choosing the one that you prefer.
You can now program in your language!



Click the LED Display category on the left side of the MicroBlocks window.

Drag the screen block to the programming area and click on it (in the blue part of the block) to test how the screen of the ED1 lights up.



CHALLENGE

Try to change the drawing that appears on the screen of the ED1.

Hint: to delete use the following block:

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Animations with ED1

2

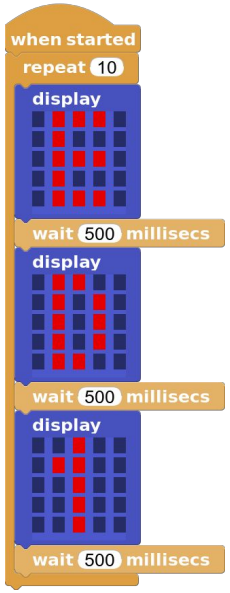
Connect the ED1 board to Microblocks.

Create animations representing drawings, numbers, letters and symbols using the screen block!

Go to the **Control** category, you will need the following blocks:

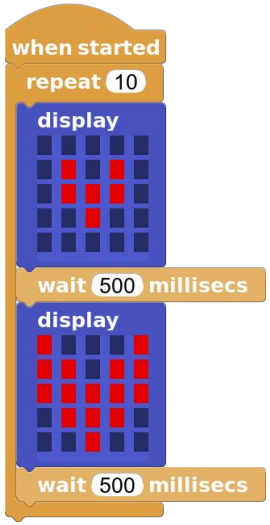
Control

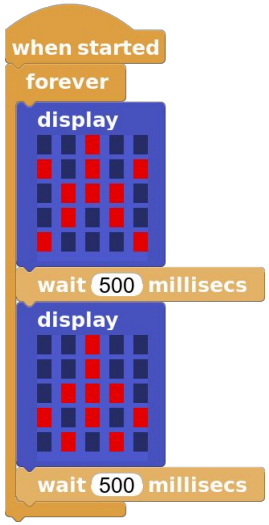
Can you reproduce your initials?



⚠ Remember: press ▶ to initialize the program.

Try new ideas!





CHALLENGE

Create a timer which count down from 5 to 0 and wich indicates when it finishes!

Hint: save time and use the block:

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ED1 sensors (I)

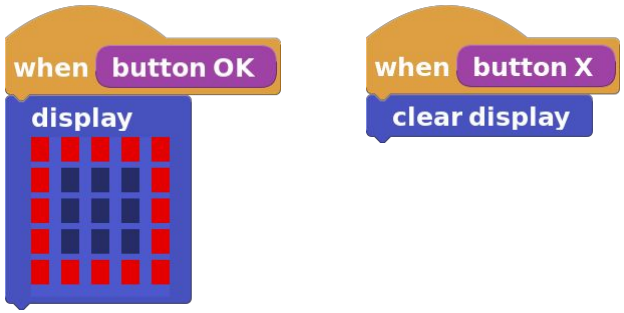
3

Connect the ED1 board to Microblocks

Go to the **Control** category, you will need the following blocks:

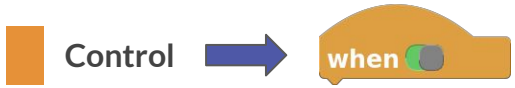
Also prepare the **button** blocks:

Draw a picture using one button and reset the display with another.



⚠ Remember: press ▶ to initialize the program.

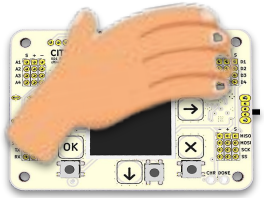
Go to the **Control** category, you will need the following blocks:

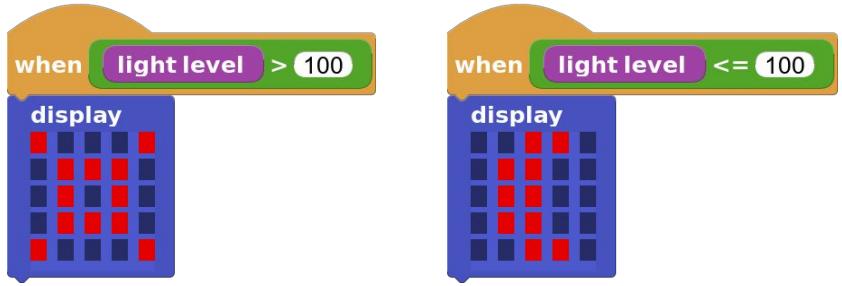


Also prepare the sensor blocks:

And those of operators:

Play with light sensor, cover and uncover it and check the value in each case. Make a program that shows a sun if the board detects light and a moon if it doesn't.





ED1 sensors (II)

4

Connect the ED1 board to Microblocks

Go to the **Control** category and drag the following block in the programming area:

Control → 

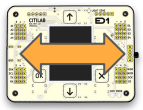
Also prepare the next **sensors** block:

Basic sensors → 

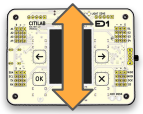
And those from **Operators**:

Operators → 

The accelerometer is a sensor that detects the inclination of the board in the different axes (x, y and z):

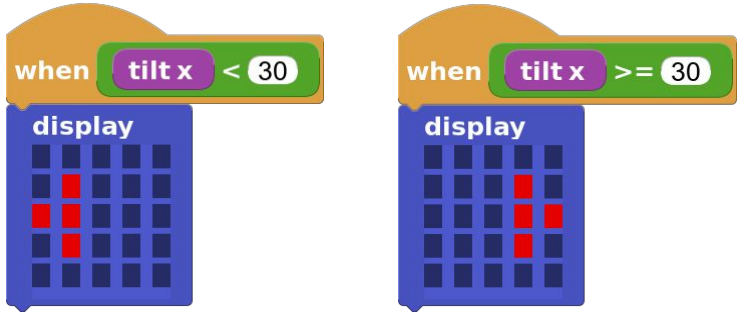


The **x** refers to the horizontal inclination of the board.



The **y** refers to the vertical inclination of the board.

Play changing the drawing on the screen by tilting the board in the x axis:



⚠ Remember: press ▶ to initialize the program.

CHALLENGE

Try to change the drawing by changing the y axis!

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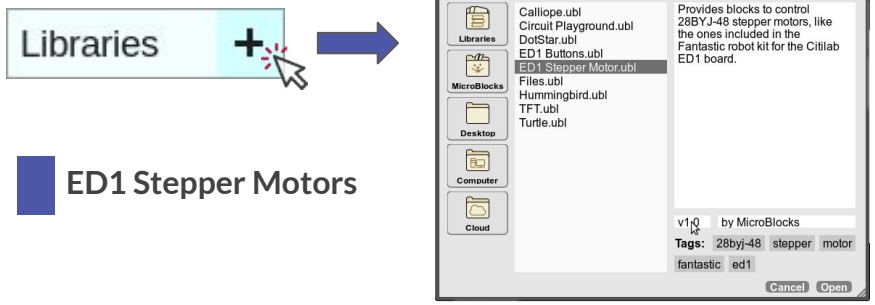
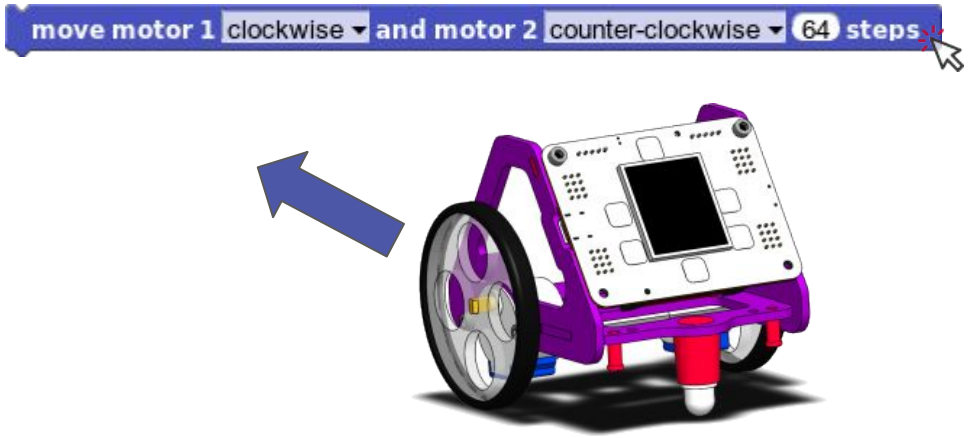
Moving the *Fantàstic* robot 5

Connect the ED1 board to Microblocks.

Open the library “ED1 Stepper Motor.ubl” in the “Other” category:



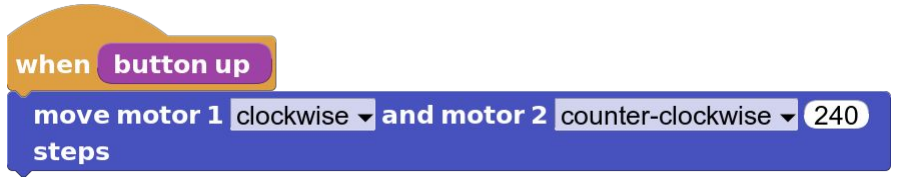
Drag the move motor 1 and motor 2 block and click on it to test how the robot moves forward:



Move the robot using the direction buttons on the board

Control → when

ED1 Buttons → button up

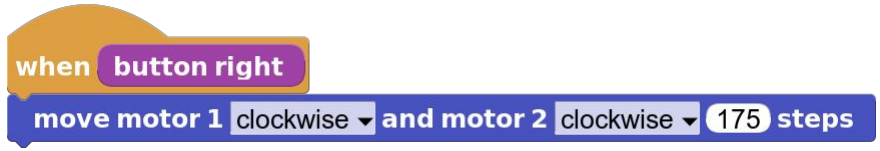


⚠ Remember: press ▶ to initialize the program.

CHALLENGE

Now program the rest of the direction buttons so the robot moves in the right direction.

Hint: try changing the motor directions



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