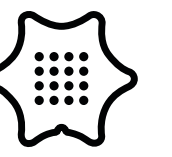


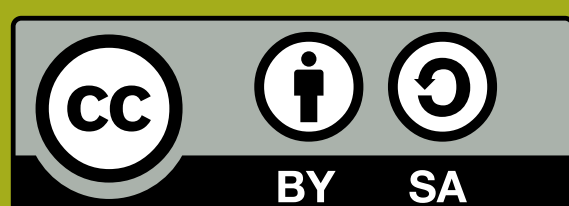
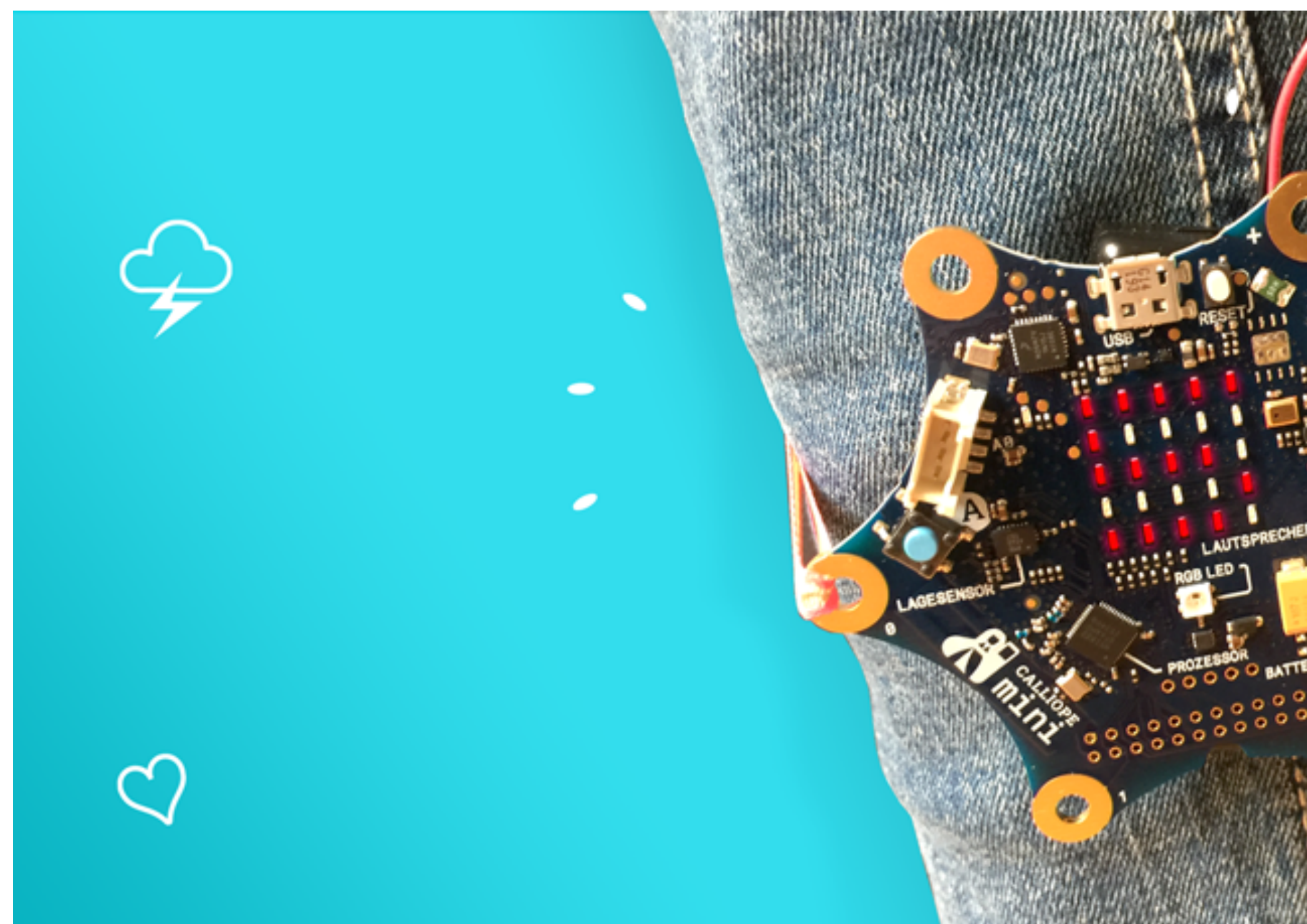
STEP COUNTER



How many steps do you walk in the apartment per day?

Do you exercise a lot or just a little at the moment?

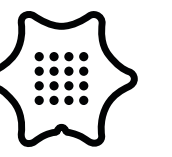
Check it out with your self-built step counter!



CALLIOPE.CC



STEP COUNTER



You need the following blocks and categories for this program:

Action



Show text

Displays a text on the screen.

Sensors



Button input

Is the selected button pressed?

Control



Acceleration sensor

Outputs the value for the acceleration.

Logic



Infinite Loop

Repeats the action indefinitely.

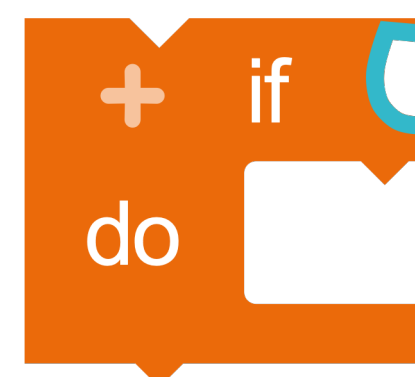
Math

Variables



Wait until

Waits until sensor data is received.

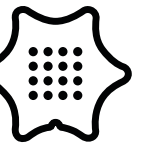


If/do condition

If a condition is true, then execute specific commands.



STEP COUNTER



You need the following blocks and categories for this program:

Action

change  by  1

Change by

Adds a value to a variable.

Sensors

 0

Value

The input value is a number.

Control

Logic

set  item to 

Set item

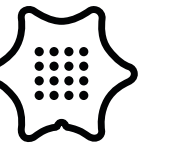
Assign a value to this variable, for example 0.

Math

Variables

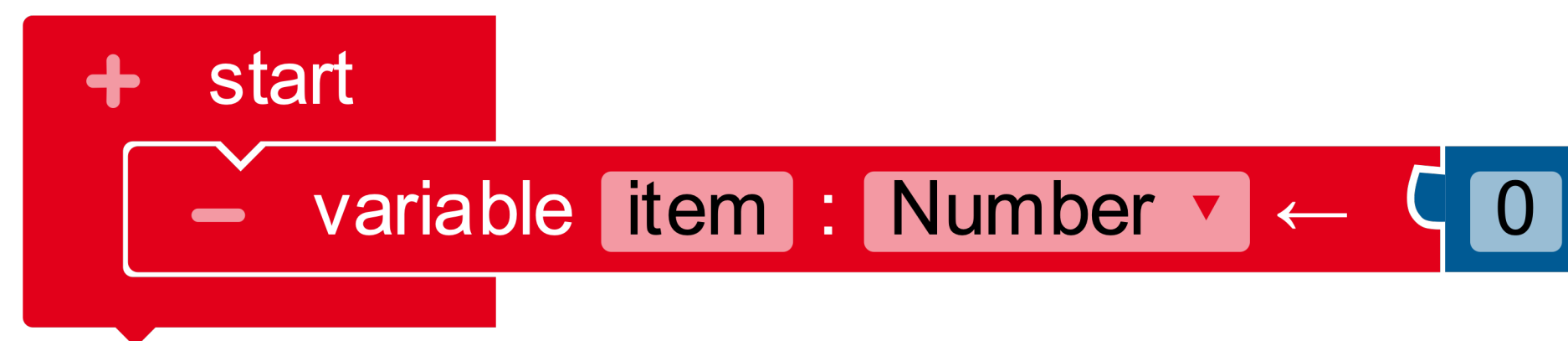


STEP COUNTER

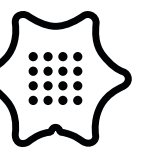


1

Click on the plus next to "Start" to create a new variable.



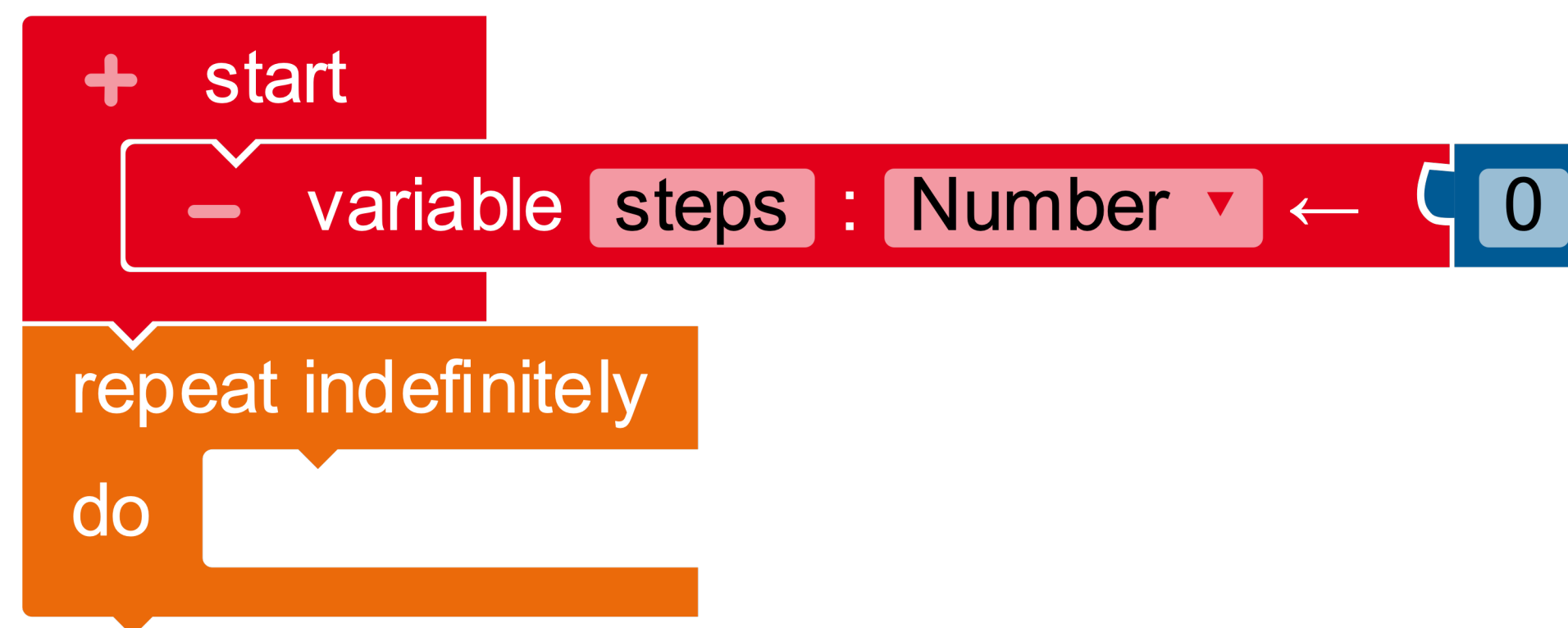
STEP COUNTER



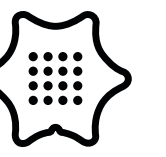
2

Change the name of the variable from "item" to "steps" and place the **repeat indefinitely** loop below the start block.

Control



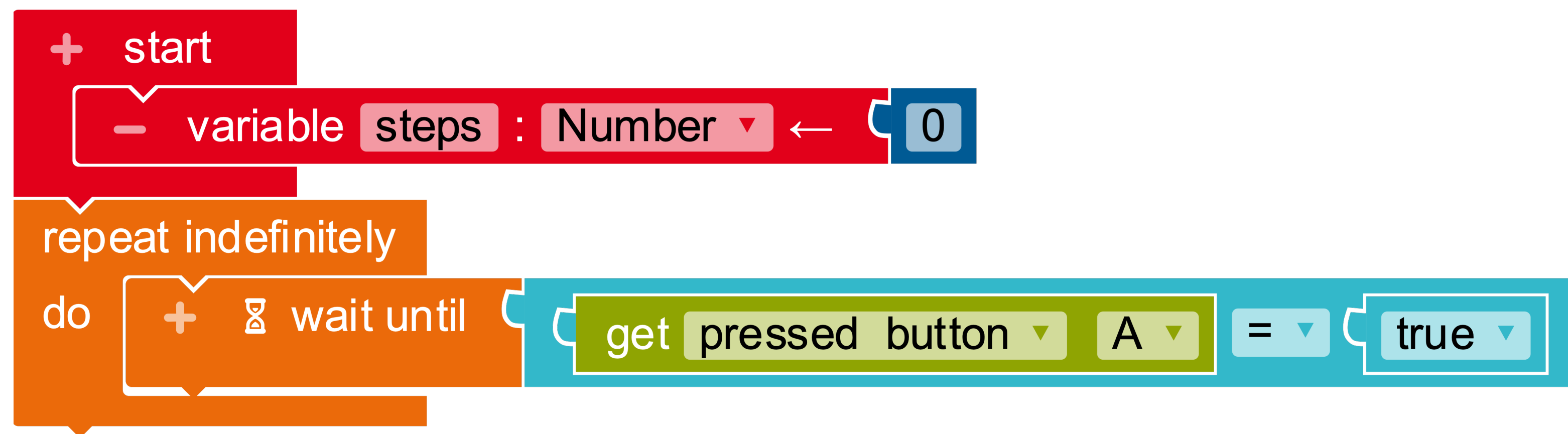
STEP COUNTER



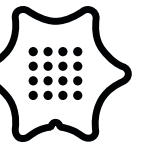
3

Insert a **wait until** block.

Control



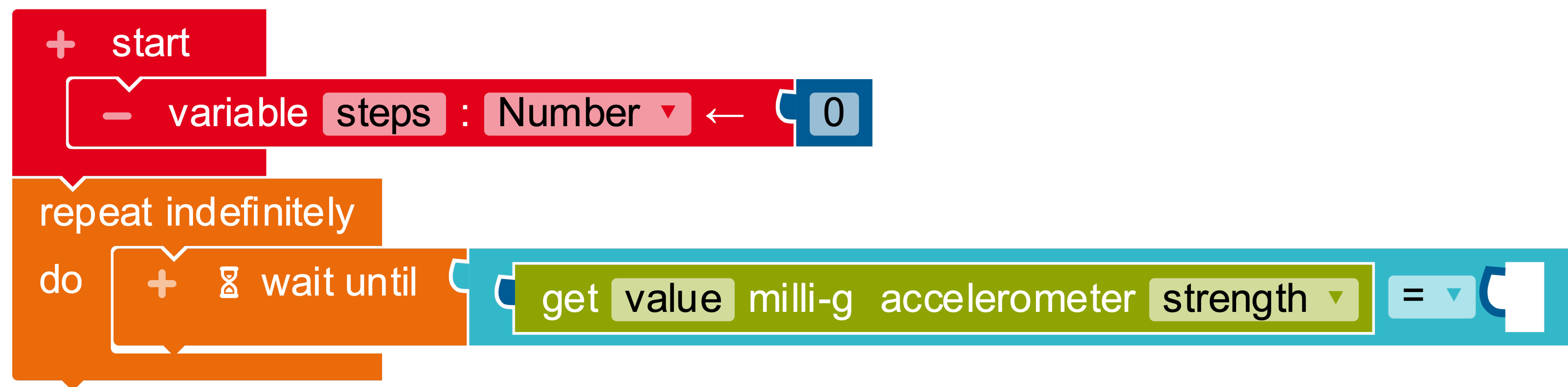
STEP COUNTER



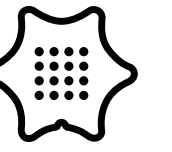
4

Replace the block "get pressed button A" with the **get value milli-g accelerometer** from the sensors category. Select "strength" as measured force.

Sensors



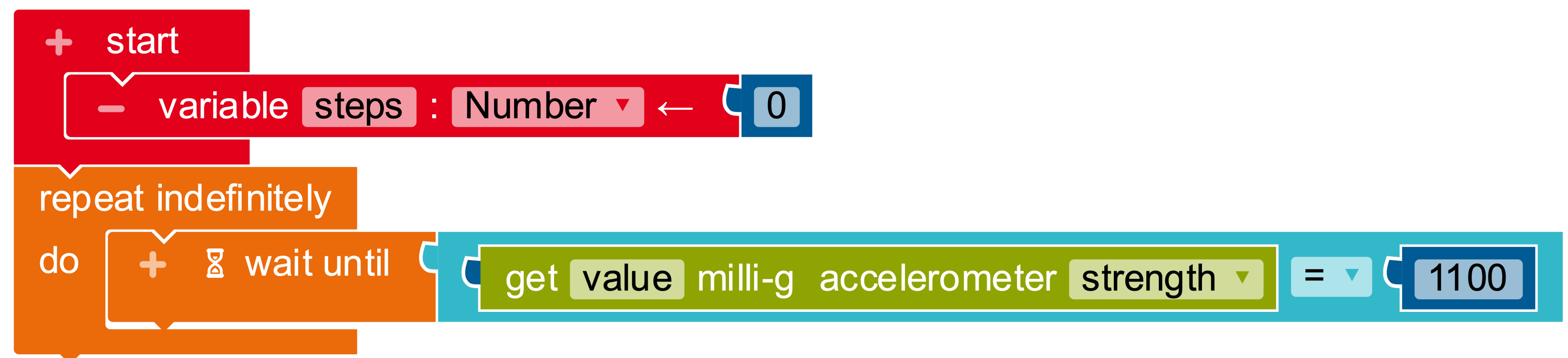
STEP COUNTER



5

In order for the Calliope mini to recognise your movement as a step, we need a so-called threshold value. This defines when a movement counts as a step. Use a **value block** and enter the value "1100".

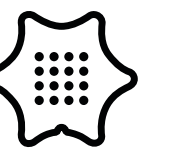
Math



Tip: If you do not move your Calliope mini, the accelerometer will display the number "1024". This corresponds to the acceleration of gravity. The threshold value for the pedometer should be just above or below this value. If your Calliope mini does not detect your steps, change the threshold value slightly.



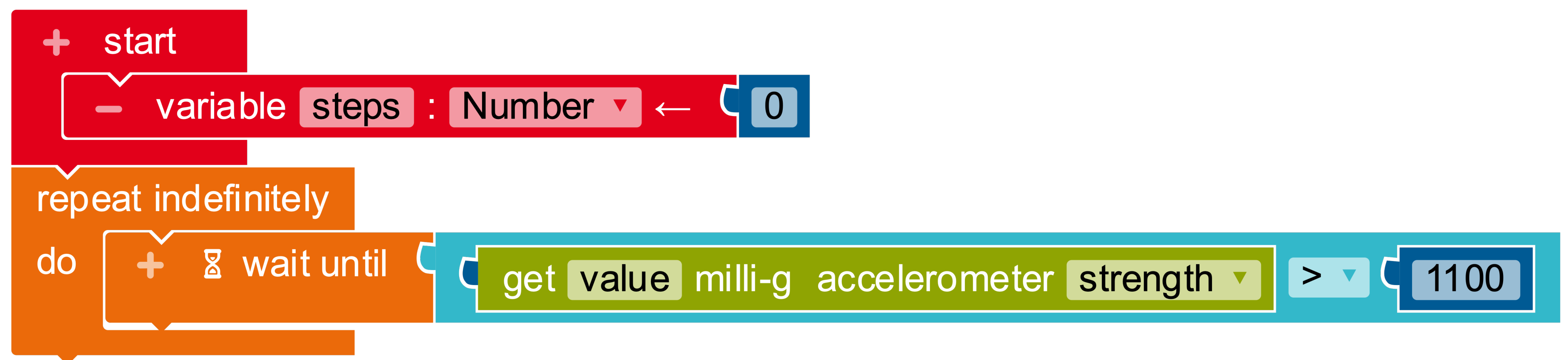
STEP COUNTER



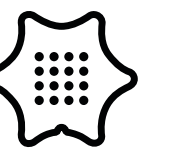
6

Change the logic block from "=" to ">" so that the Calliope mini recognizes the step.

Logic



STEP COUNTER

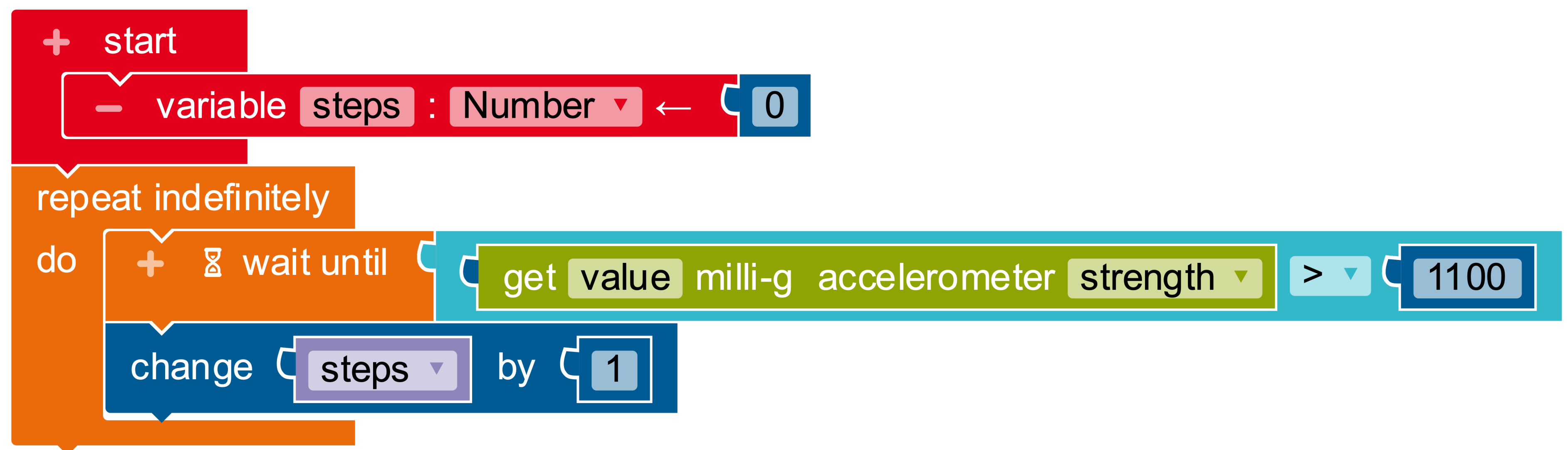


7

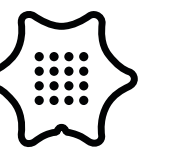
Insert a **change by** block into the loop and set the variable "**steps**" into the free space. Make sure you increase the value by "1". Now you have programmed the heart of the step counter.

Math

Variables



STEP COUNTER

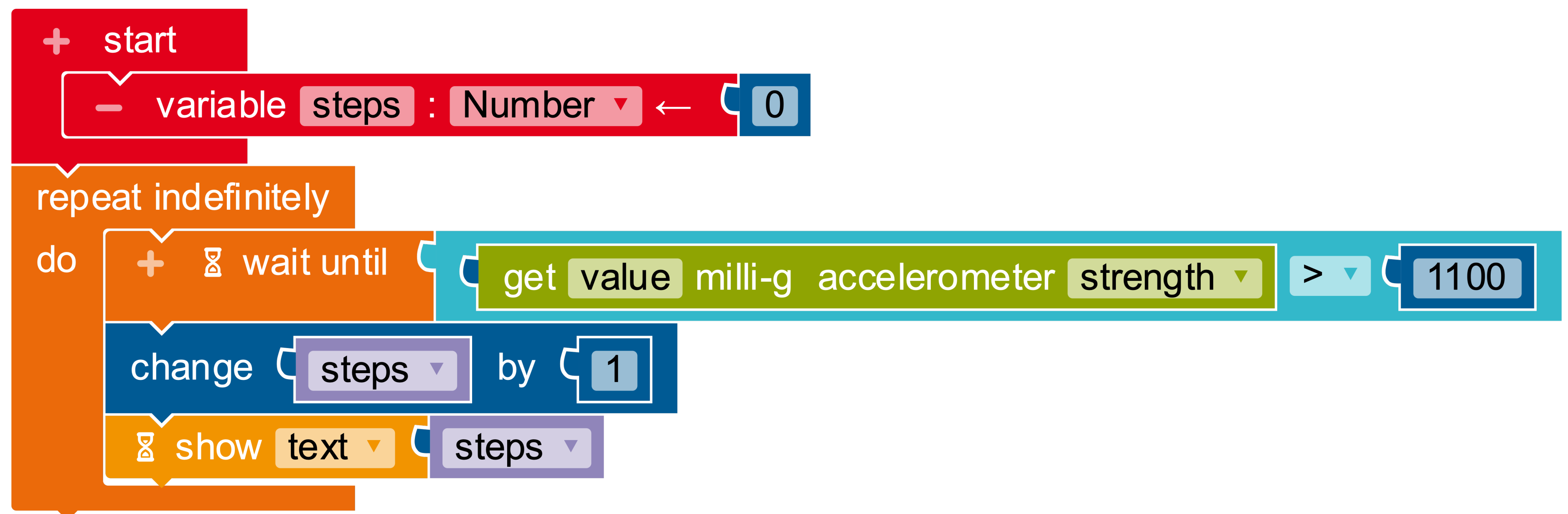


8

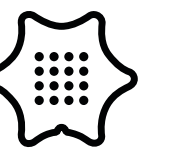
To show the number of steps on the display, you need a **show text** block. You also need to add the variable block "steps" again.

Action

Variables



STEP COUNTER

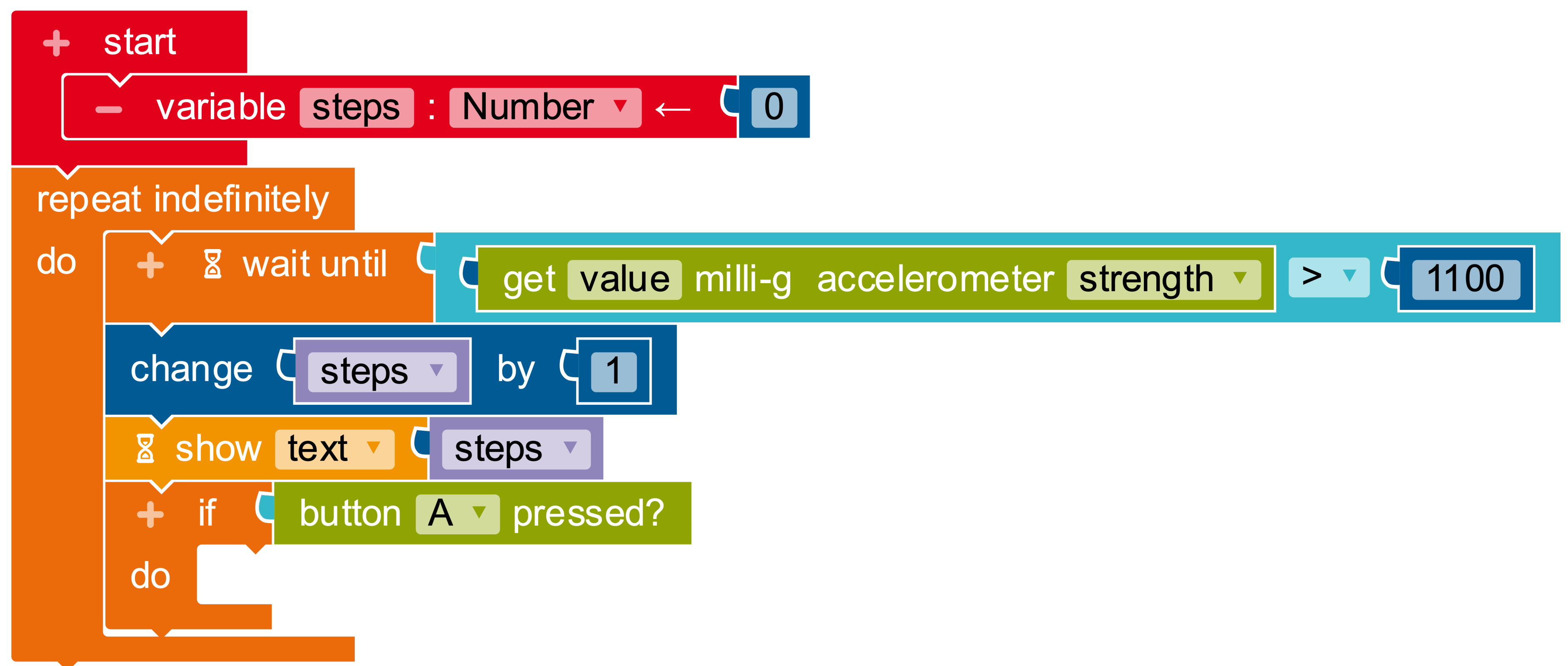


9

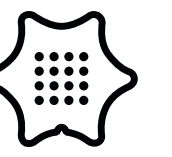
To reset the step counter, insert an **if/do** condition from the control category. With the block "**button A pressed?**" you can then control the condition manually.

Control

Sensors



STEP COUNTER



10

To reset the step counter correctly, insert a **set steps to** block in the condition. Now you can reset the variable to "0" with the button A.

Math

Variables

