

Software - LEGO Powered Up App

GBC 54 Vertical Conveyor Lift – 42146 Alternate Build



Open the LEGO Powered Up app on your smart device.
Complete the steps in the correct order by following the numbers.



First click on the gear icon to go to settings (1).



1

Play

Create



1 minute ago
GBC 45



1 minute ago
GBC 41



Click on the “Default Palette Level” button (1) and select on “Advanced” (2).
Once selected, go back via arrow icon (3).



3

Language

Settings

About

Help

3.7.0

Settings

Auto-Connect



Never time out



Default Palette Level

1

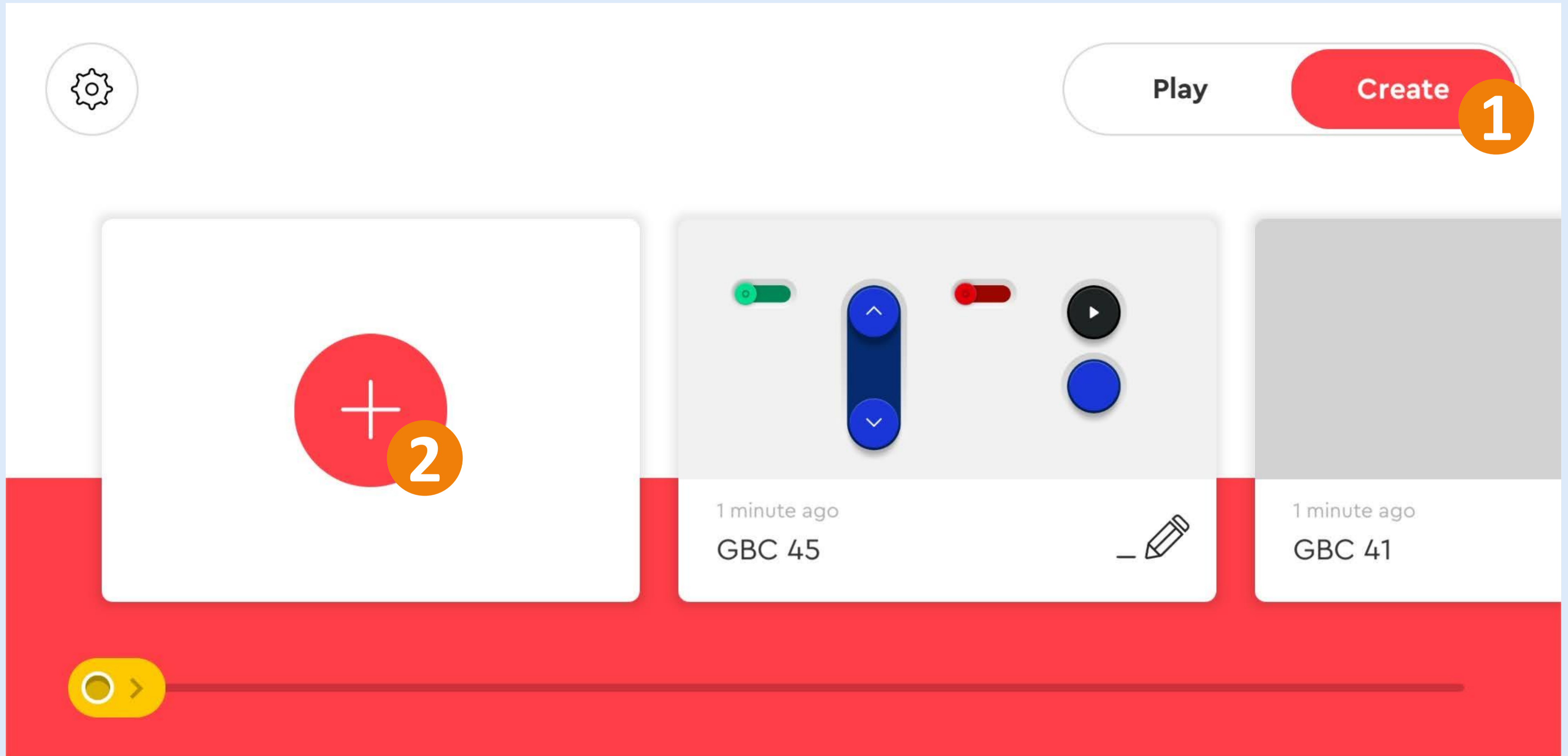
2

ADVANCED

Delete All Projects



Click on the "Create" button (1) and tap on the + sign (2).



Enter a name for your project.



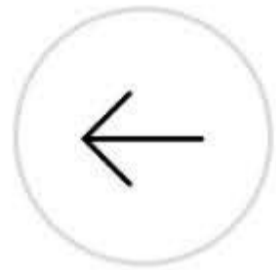
01 — 03

NAME YOUR PROJECT



1 2

Select the controller type.



02 — 03

CHOOSE PROJECT TYPE

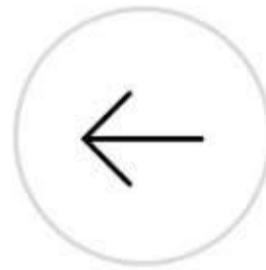


Controller



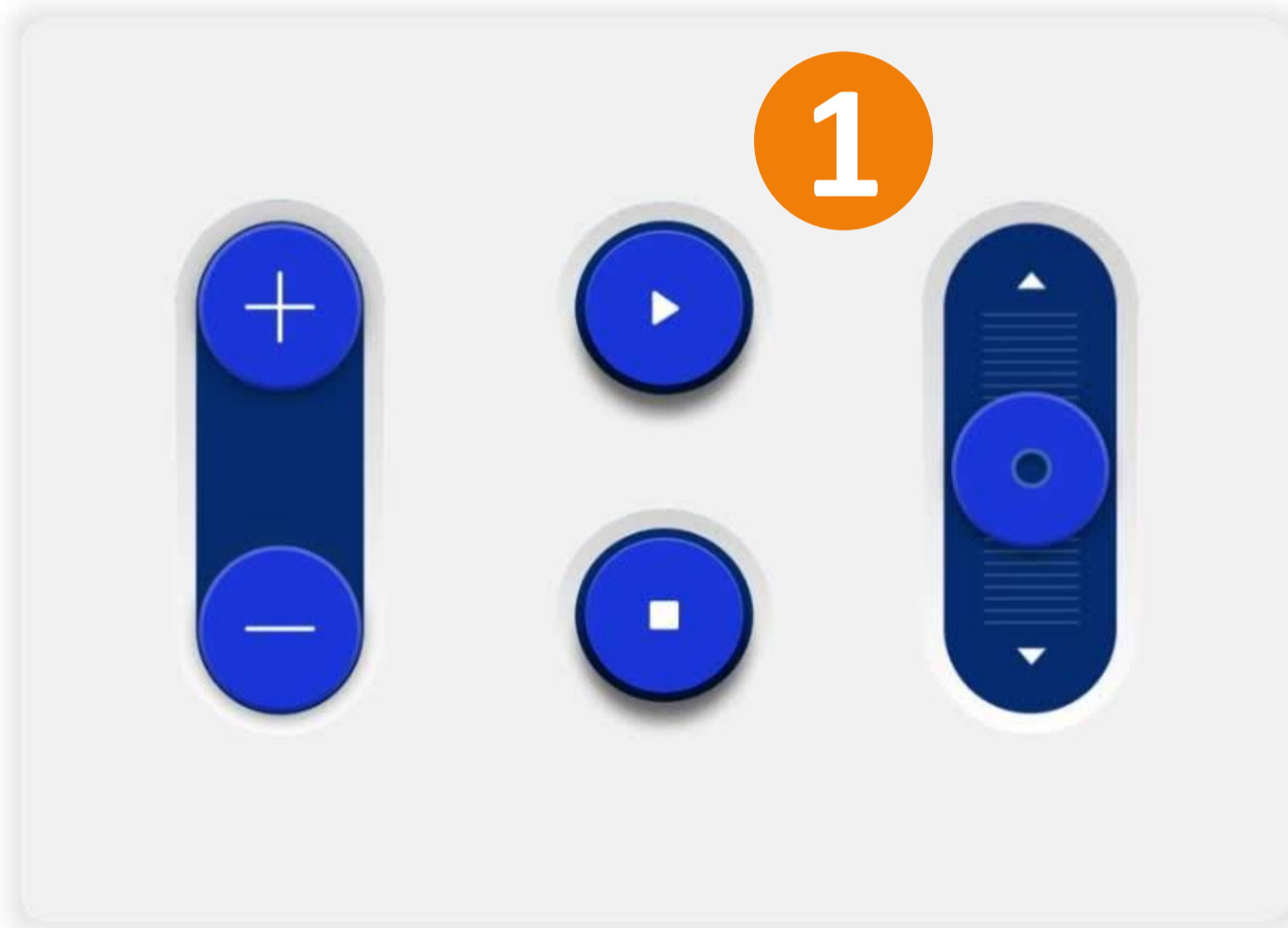
Coding

Select the correct controller interface.

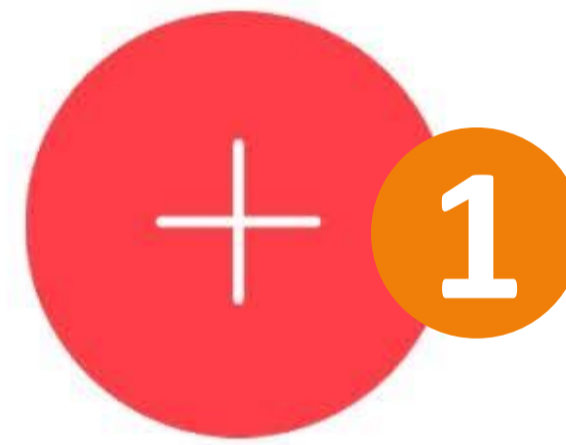


03 — 03

CHOOSE CONTROLLER



Click on the + sign to add your first widgets/buttons.

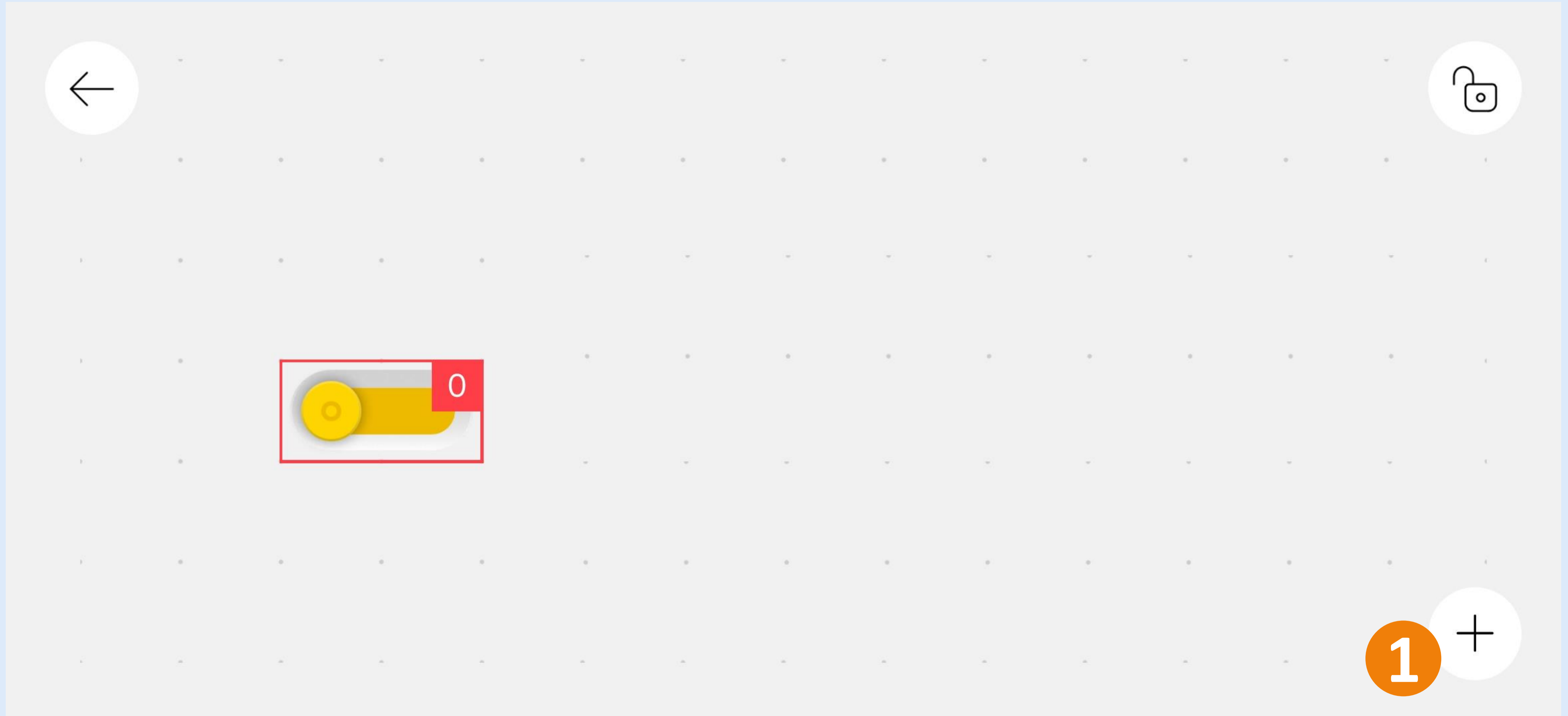


Add your first widget

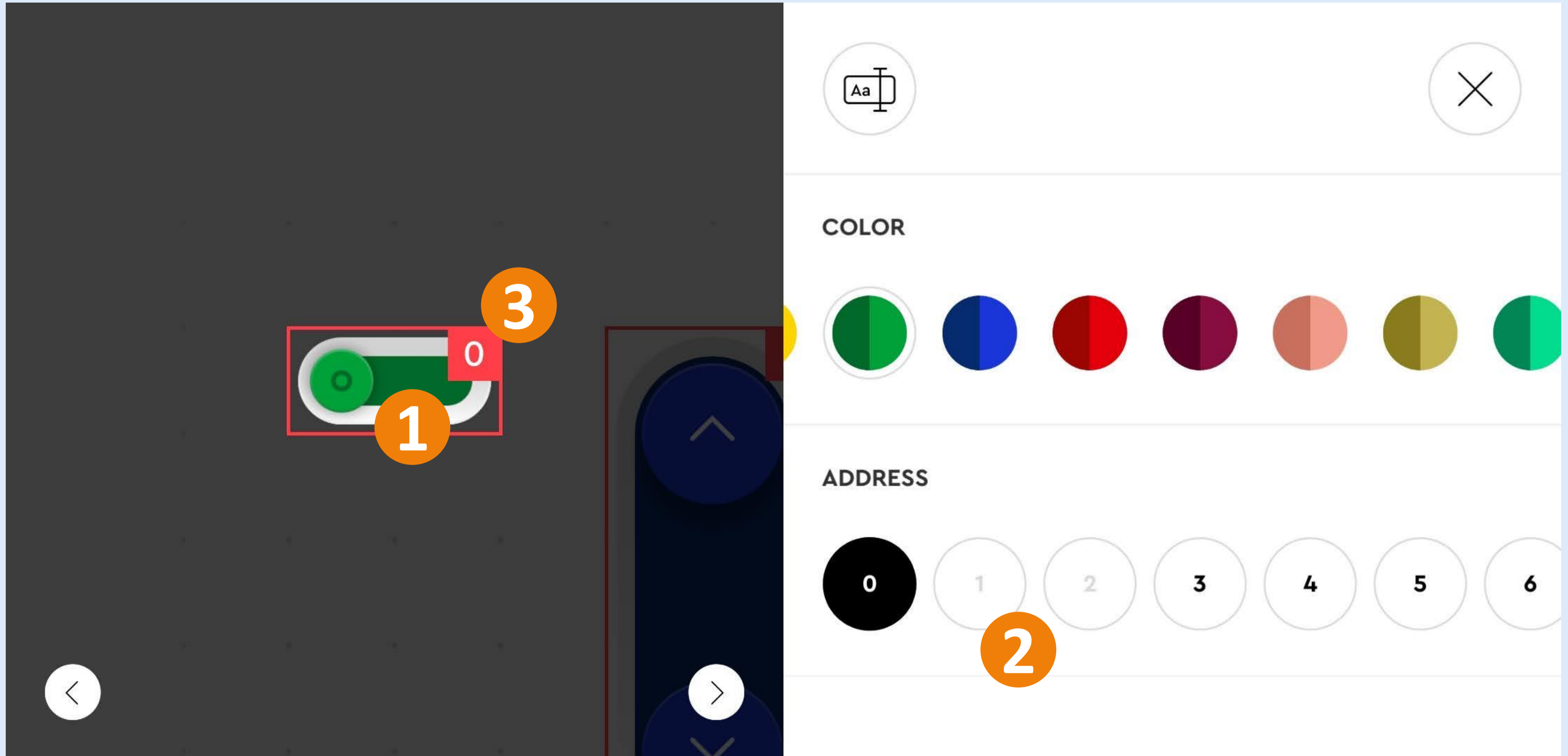
Add the following colored buttons (1). You can select more buttons simultaneously. Scroll up and down to find all the buttons. Click “Add Widgets” to proceed (2).



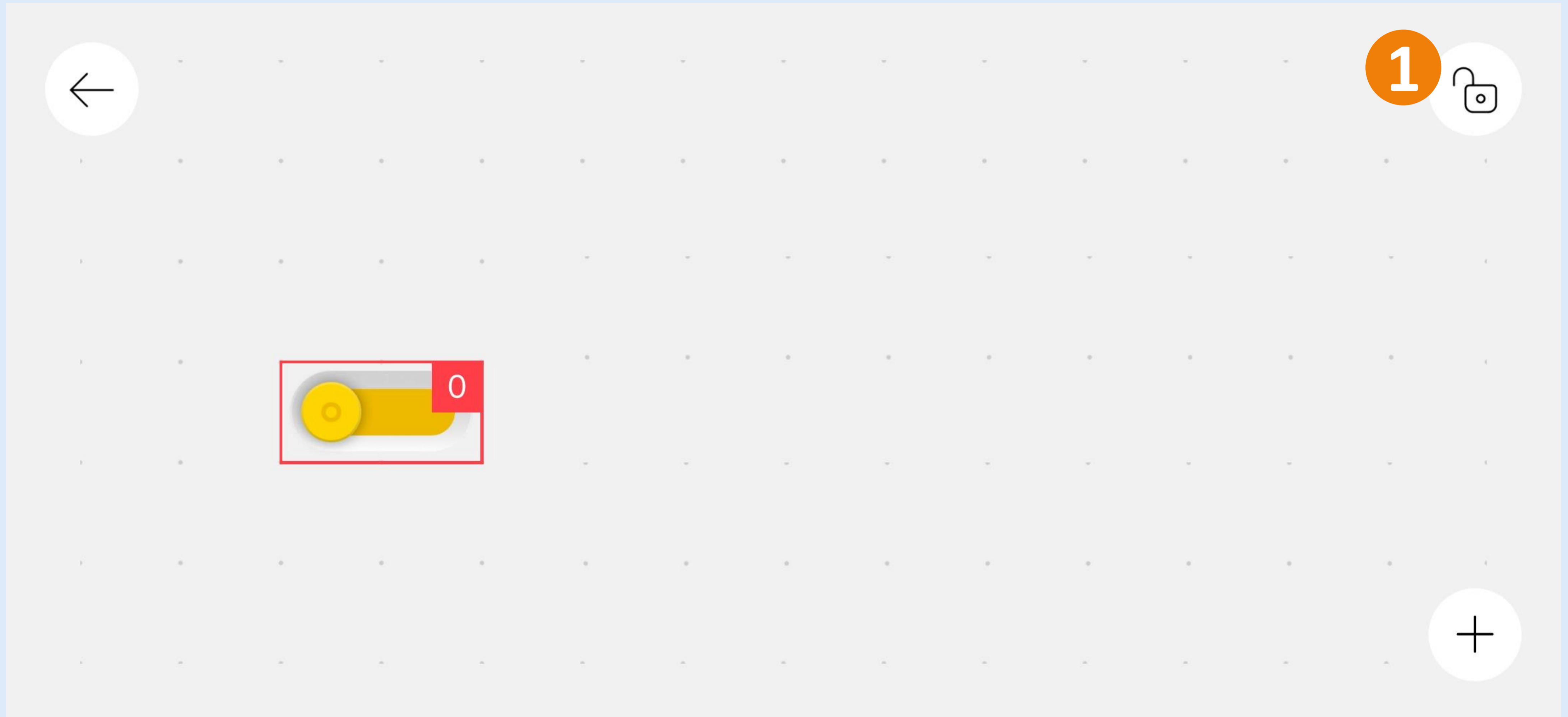
Rearrange the button as shown below. If you made an mistake, click the + sign (1) and add the correct button in the correct color. Scroll up and down to find all the buttons. You can select more buttons simultaneously in the add widget screen.



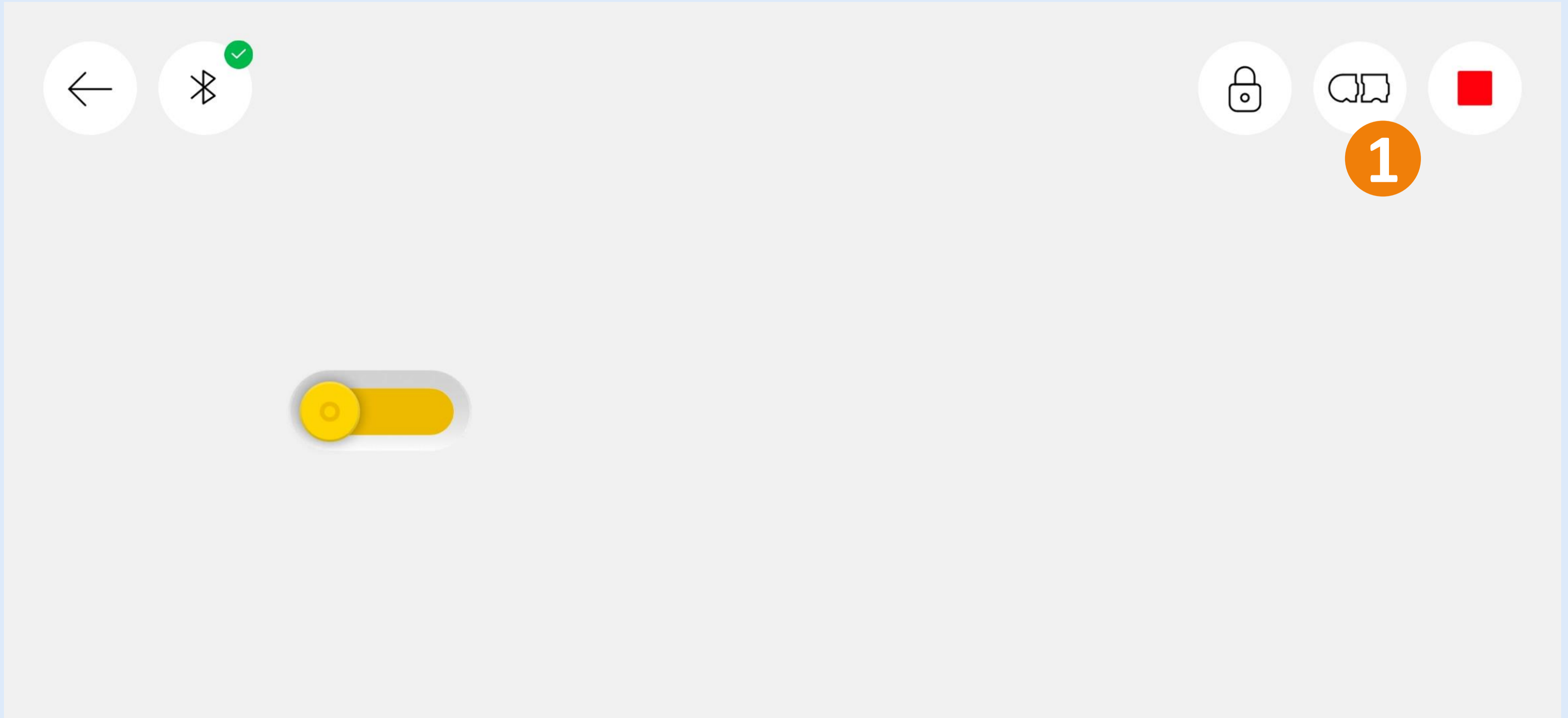
Click on the button (1) and change the address (2) as shown below in the red square (3).
See previous step for all the correct addresses.



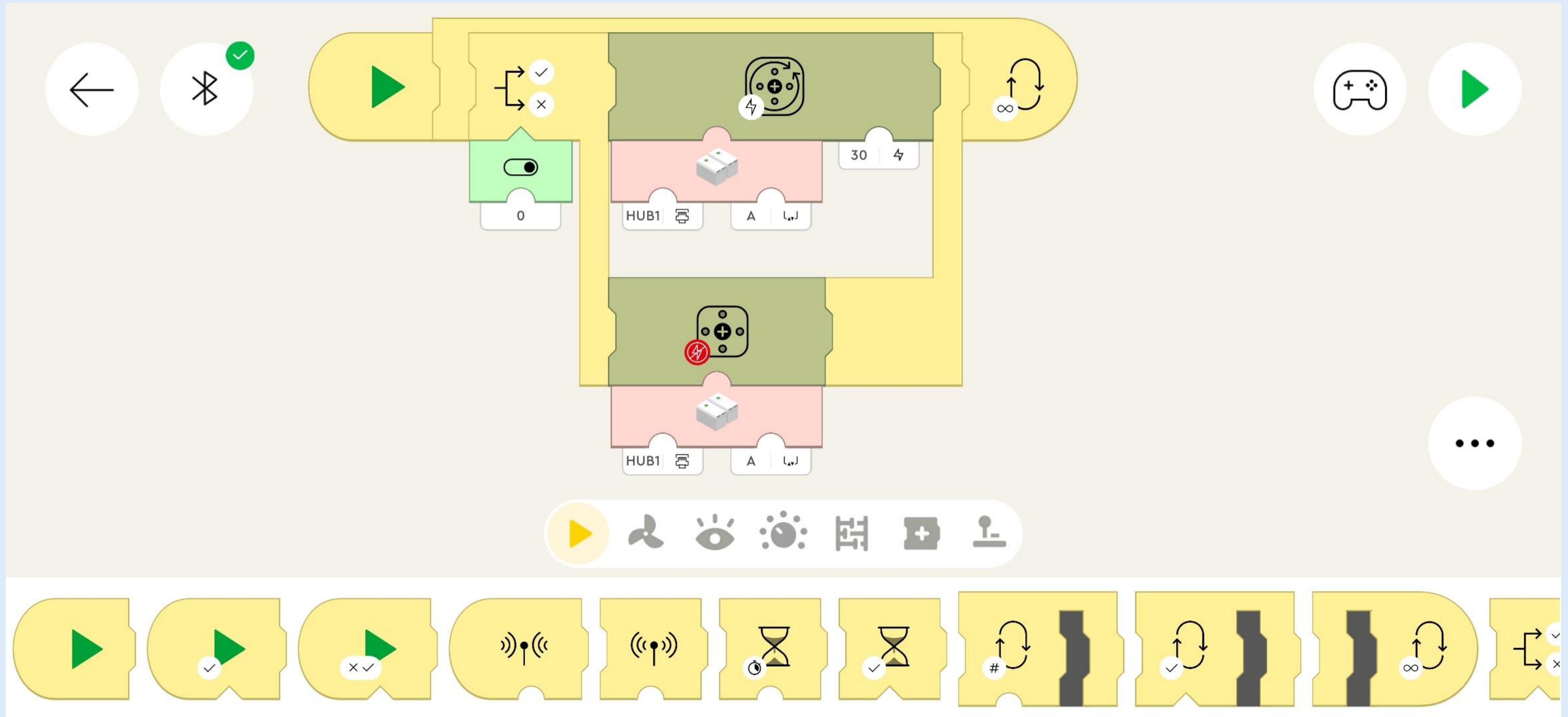
Double check all the addresses in the red squares!
Click on the lock icon to confirm and lock the buttons (1).



You should now see this interface. Click on the code icon to proceed (1).



This is the code interface which should still be blank by now. In the next steps we are going to build this step by step in the order shown below. You can zoom in and out on the code interface by pinching your fingers.



This code is for the Vertical Conveyor Lift. You can find all the blocks in the library of the same color (0). Drag them into the project one by one on the code interface. Start from the left and work from the outside in. So first get the yellow start block (1) followed by a loop block (2). Inside this loop block you have to place a toggle block (3) which are triggered by button 0 (4). Then add the motor blocks (5) and set the correct speed (6). Add the hub/port block and make sure to select Hub 1 and output A for both motors (7).



The screenshot displays the LEGO Mindstorms code editor interface. The main workspace contains a sequence of yellow code blocks. A yellow start block (1) is followed by a loop block (2). Inside the loop, a toggle block (3) is triggered by button 0 (4). This is followed by two motor blocks (5) connected to HUB1 output A, with a speed setting of 30 (6). A hub/port block (7) is also present. The code editor interface includes navigation buttons, a Bluetooth connection status, and a block library at the bottom.

The end result should look like this. You should have 1 starting block followed by code.



The screenshot displays a block-based coding environment. At the top left, there are navigation icons: a back arrow, a Bluetooth symbol with a green checkmark, and a green play button. The main workspace contains a large yellow block with a green play button on its left side. This block is connected to a green loop block containing a 'wait 30 seconds' block and a 'say Hello for 4 seconds' block. Below the loop is a 'when green flag clicked' block with a 'turn on light' block. The workspace also features two 'game controller' blocks, each with a red lightning bolt icon, connected to 'HUB1' and 'A' ports. A '30' and '4' block is visible between the two game controller blocks. On the right side, there is a game controller icon, a green play button, and a three-dot menu icon. At the bottom, there is a toolbar with icons for play, undo, redo, zoom in, zoom out, and a plus sign. Below the toolbar is a row of ten yellow blocks: a green play button, a green play button with a checkmark, a green play button with 'x' and 'v' icons, a 'say Hello for 4 seconds' block, a 'say Hello for 4 seconds' block with a checkmark, a 'wait 30 seconds' block, a 'wait 30 seconds' block with a checkmark, a 'repeat 10 times' block, a 'repeat 10 times' block with a checkmark, a 'repeat 10 times' block with an infinity symbol, and a 'when green flag clicked' block.

Now we have to set the LEGO Powered Up hubs in the correct order. Click on the Bluetooth Icon and turn the hub on (1). You can optionally rename the hub by clicking on the pencil icon (2). Close the Bluetooth menu if all is exactly like shown below (4).



Connect



01



Technic Hub 1



You are all set! Switch to the controller interface to control the machine (1).
Feel free to explore the code and add your own functionality.
We can't wait to see all your cool inventions!



The image displays a block-based programming environment for a robot. The main workspace features a yellow robot with two green motor blocks, two pink sensor blocks labeled 'HUB1', and a central grey control block. A green play button is on the left, and a game controller icon with a large orange '1' is on the right. A bottom toolbar contains icons for play, rotation, eye, light, grid, add, and pin. A bottom palette shows various blocks including play, sensors, timers, and loops.

The yellow toggle switch (1) powers the Vertical Conveyor Lift. Have fun!

