



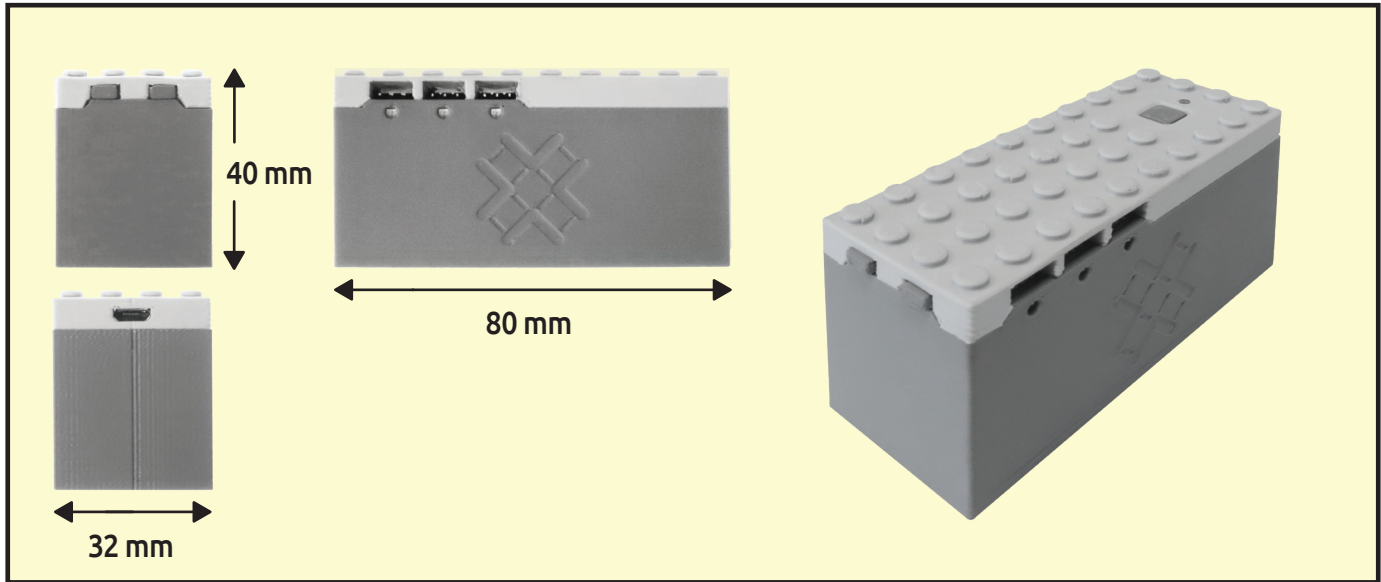
TRIXBRIX

All-In-One Controller 2.0

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# All-In-One Controller 2.0



All-In-One Controller 2.0 is a universal device that allows you to remotely control switches, barriers, and signals using the same remote that is used to operate trains. The device can also be connected to the Powered Up mobile app and, in addition, is equipped with an automatic operating mode that does not require any wireless connection.

The All-In-One Controller 2.0 fully integrates with the Powered Up system and simulates the operation of other devices that are part of the Powered Up system.

# Connecting the All-In-One Controller 2.0 with the Train and Remote Control

To control the device remotely, make sure that the train and the remote are turned on and paired with each other (the lights on both the train and the remote should be the same color). Then, turn on the All-In-One Controller 2.0 by pressing the main button. When the indicator light starts blinking white, press and hold the main button on both the All-In-One Controller 2.0 and the remote. Keep holding both buttons until the connection is established. The lights will glow in the same color on all devices, which indicates a successful connection.

You can now control the device with the remote. To control the train and the All-In-One Controller 2.0 independently, you can place both devices on separate channels. Pressing the power button on the device changes the light color, which corresponds to switching to a different channel. The power button on the remote control allows you to select one of the available channels and control each device separately.

WATCH THE VIDEO →



# Universal outputs

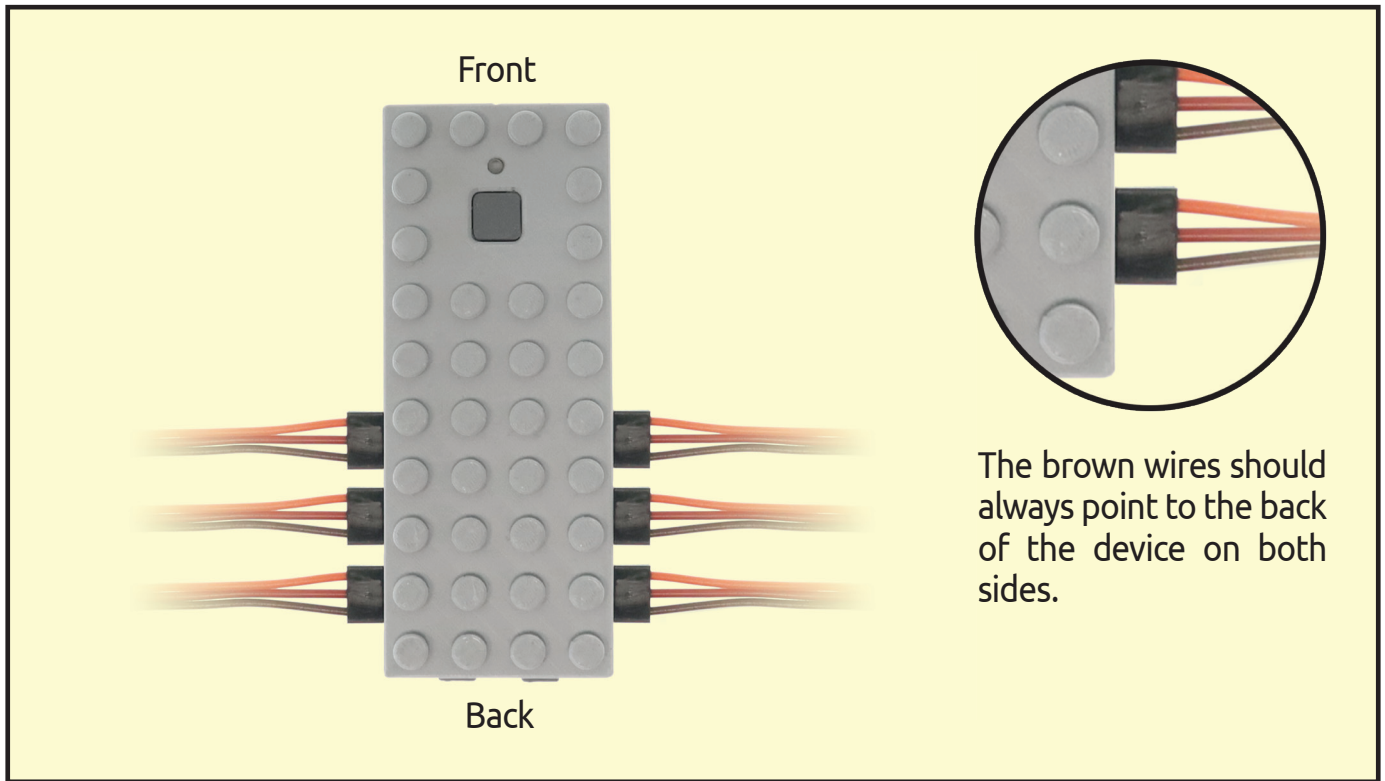
All-In-One Controller 2.0 is equipped with six universal and configurable outputs. Four of them are used to control switches, barriers, and signals, while the remaining two are for connecting sensors in automatic mode.

Once connected to the remote or the app, the function of each output can be changed. The current function is indicated by the color of the light placed under the output: **green means switch control**, **blue means signal control** and **red means barrier control**. The buttons next to the outputs allow you to change the function.

Make sure that all cables are unplugged from the outputs before changing modes. Enabling the barrier mode while a switch servo is connected to the output may cause damage to the servo.

The outputs located on the left side of the device, labeled "A", are controlled by the buttons on the left side of the remote marked "A". Similarly, the outputs on the right side, labeled "B", can be controlled using the buttons on the right side of the remote.

When both outputs on one side are configured for switch control (green), one output will act as a mirror of the other, allowing you to control switches in a siding.



# Controlling multiple devices

A single remote control traditionally allows you to operate only four other devices.

To do this, all devices that will be part of the new network, including the remote, must be reset. This can be done by powering on each device while holding down its button. After a few seconds, when the button is still held, the indicator light will start flashing purple. This indicates that the previous network identifier has been forgotten and the device has been reset. The button can then be released. Having a TrixBrix wireless device makes it possible to control up to nine devices with just one remote. To achieve this, the key is to pay attention to the order in which devices are powered on. The first device that connects to the remote becomes the "main unit" and manages the other devices added to the network.

Therefore, after turning on the remote control, you should first power on one TrixBrix wireless device. It will then act as the "main unit" and enable control of a larger number of devices. If the remote is first connected to an original Hub, then, after pairing four devices it will no longer be possible to add more.

Thanks to this extended capability, a single remote can, for example, control four trains and four separate switch controllers simultaneously, or two trains and six switch controllers.

However, by having an additional remote control, you can also create a new, separate network.

Controlling an even larger number of devices is possible thanks to the functionality of independent "networks". All devices connected together remember their network identifier. Therefore, when they are turned on again, in any order, there is no need to repeat the pairing process.

Once all devices have been reset, you can begin pairing the remote with any device in the usual way. After the connection is established, the devices will create a new independent network with a new identifier.

It is important to note that different networks are fully independent. This means that a remote connected to one network cannot control devices in another network, even if they are set to the same channel (indicator light color).

However, by having an additional remote control, you can also create a new, separate network.

# Automatic mode

The All-In-One Controller 2.0 also features an automatic mode, which does not require a wireless connection with the remote. In this mode, it can be used for manual control of switches and barriers via the buttons on the device, or – when Train Detector sensors are connected – for fully automatic control.

When operating in automatic mode, the All-In-One Controller 2.0 works exactly the same way as the previously offered All-In-One Controller.

To switch to automatic mode, power on the device by pressing the main power button. After the power is on and the indicator light is blinking (searching for devices), hold the power button for one second and release it. Then quickly press it three times. This sequence – hold + 3 clicks - will always force a mode change.

Once switched to automatic mode, all outputs will become active. As a reminder: **Green output for connecting a switch control**, **red output for barrier control**, **blue output for signal control** and **yellow lights inputs for Train Detector sensors**.

WATCH THE VIDEO →



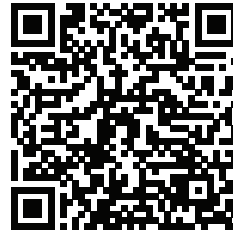
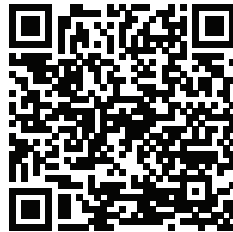
# Charging the Built-in Battery

Inside the device's casing, there is a 3200mAh battery. When its charge level becomes low, the All-In-One Controller 2.0 will signal this by flashing the indicator light in red. If this state is ignored, the device may automatically shut down after a short time.

The battery can be charged via the built-in micro-USB charging port. When the device is turned off, the indicator light flashes slowly while charging. Once charging is complete, the light will turn off automatically.

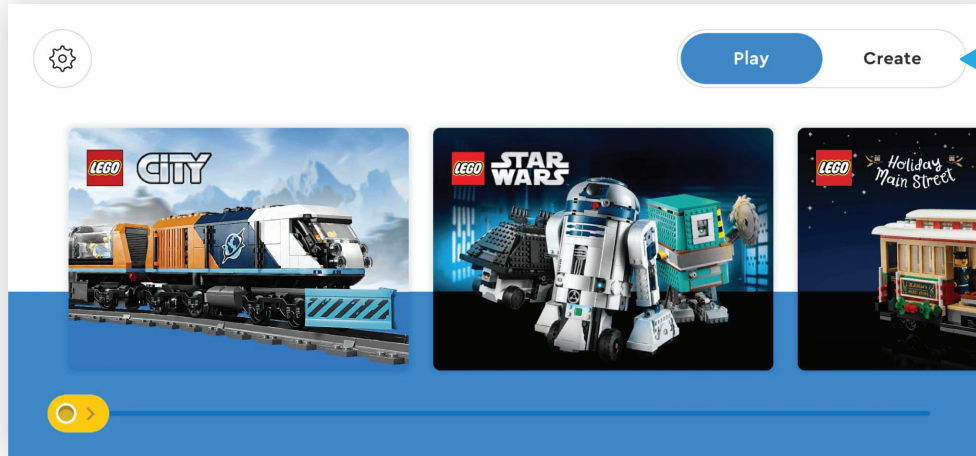
For maximum charging speed, a 5V USB charger capable of delivering at least 2A is required. A full charge should take approximately two hours.

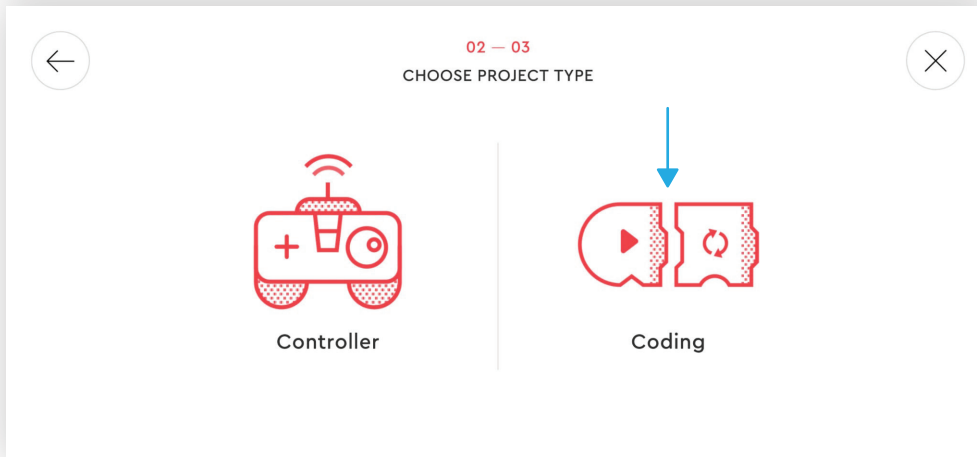
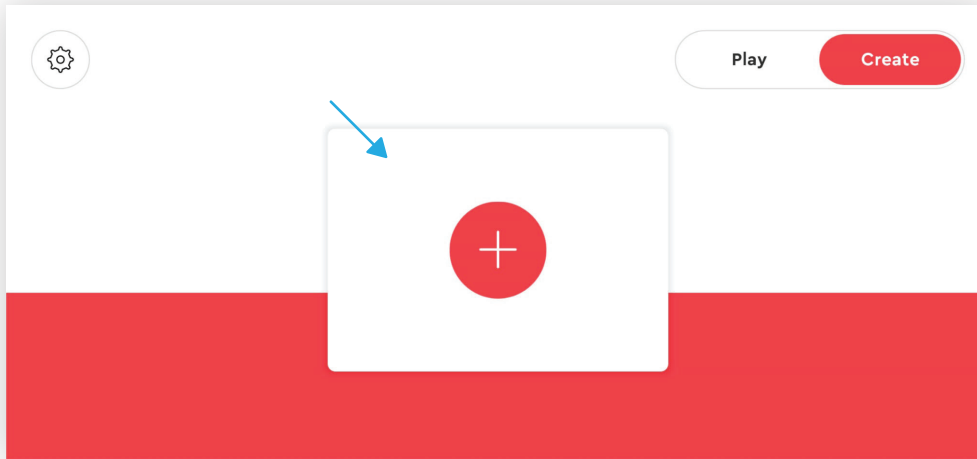
# Powered Up Mobile App



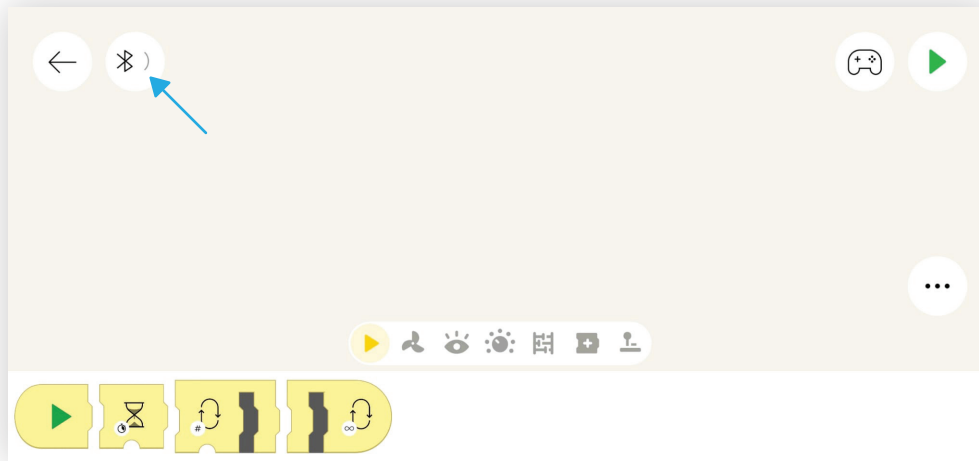
# Connecting with the Powered Up Mobile App

After downloading the app to your mobile device and opening it, start by selecting the "Create" option. Create a new project and give it a name. Then, choose the "Programming" option.

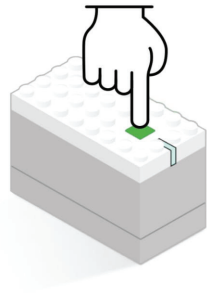




The connection can be established by opening the Bluetooth tab located in the upper left corner. The app will instruct you to turn on the wireless device by pressing the main power button on the Switch Controller. The pairing process takes several seconds but is carried out automatically. Successful pairing will be confirmed when the device's light turns blue.



Connect

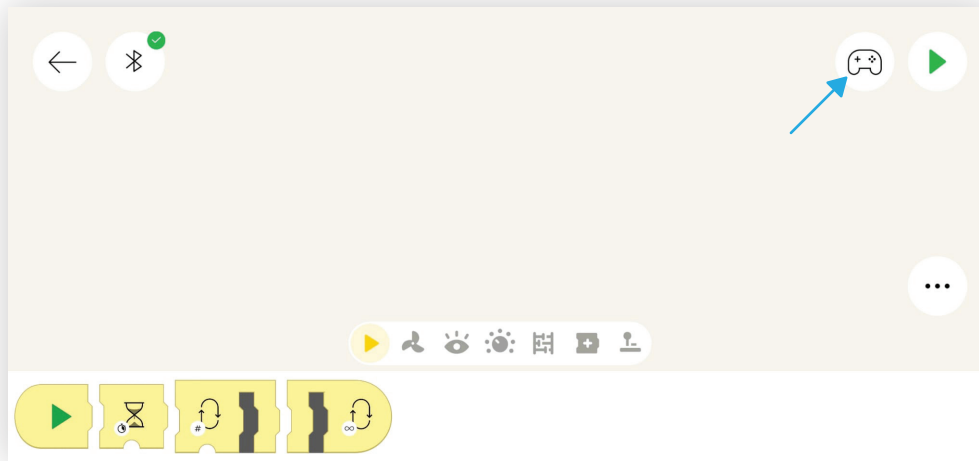


Connect

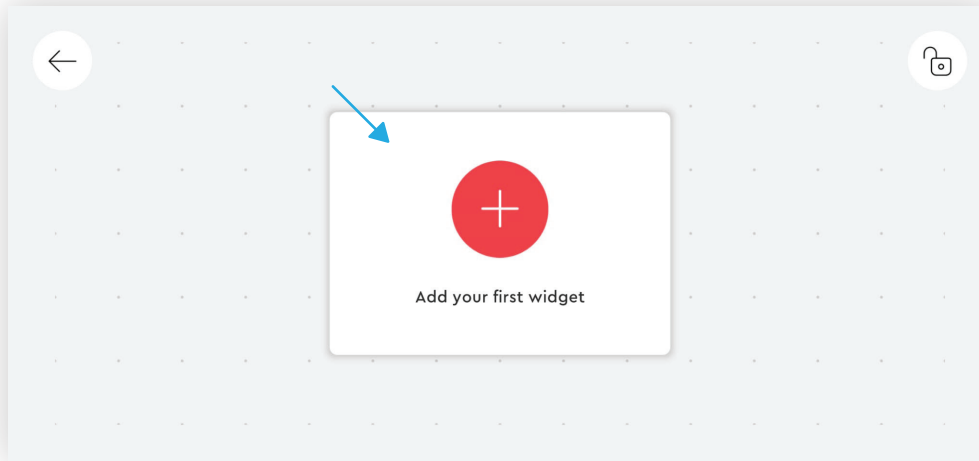


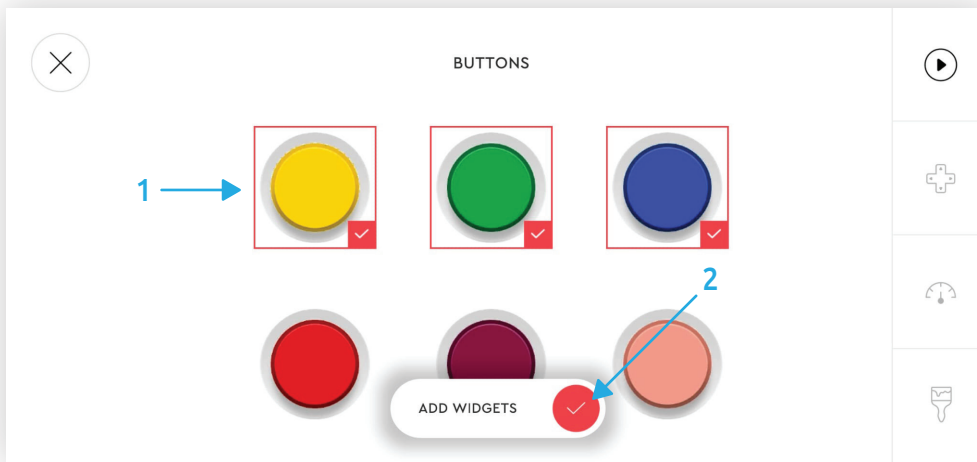
 TrixBrixSwitch  

Creating a control layout in the app is a two-step process consisting of programming the functionality and building the interface. When a new project is opened, the Programming tab is active by default. To enter the tab that allows you to build the interface, press the button with the remote control icon in the upper right corner.

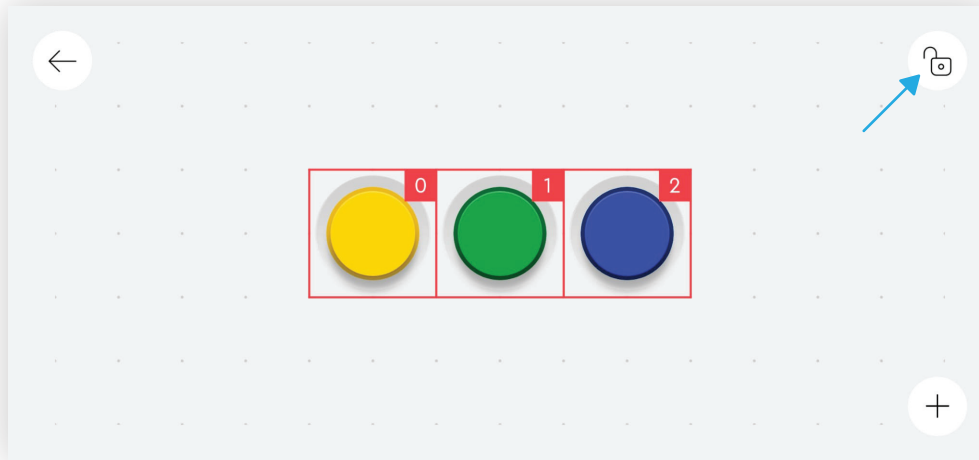


The "ADD WIDGET" button allows you to place buttons on the screen. Each button is assigned a number. These numbers will be important in the next step, so make sure to remember them. After placing a button on the screen, you can press it to change its color and add an identifying symbol (e.g. a number, arrow, +, -, etc.).



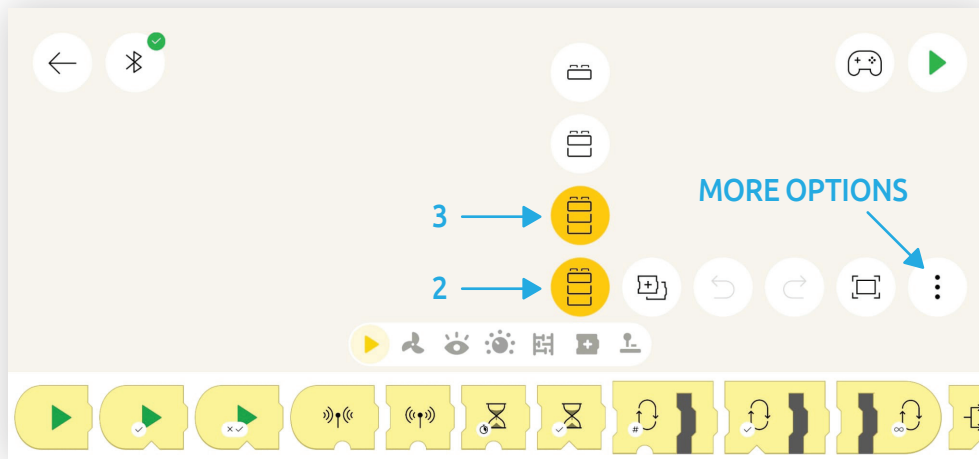


To continue the process and assign functions to the selected buttons, you need to lock the interface by pressing the padlock icon and then switch to the Programming tab (the icon with two interlocking bricks in the upper right corner).

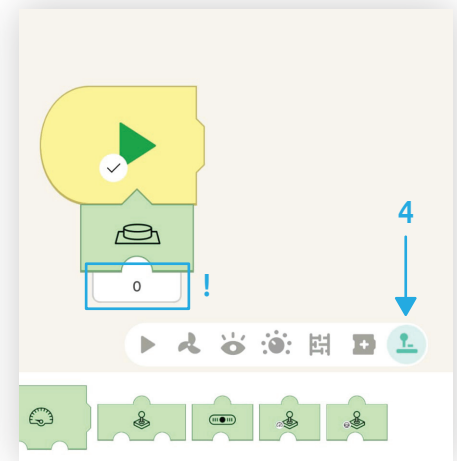
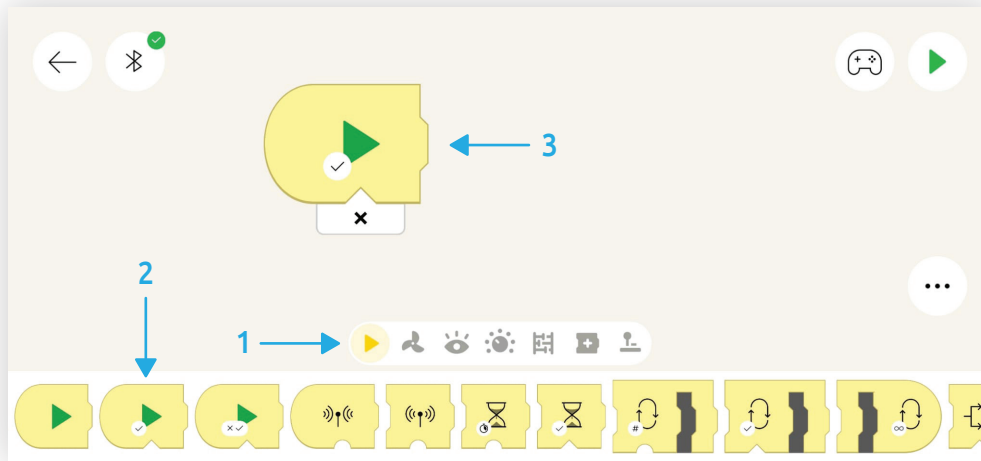




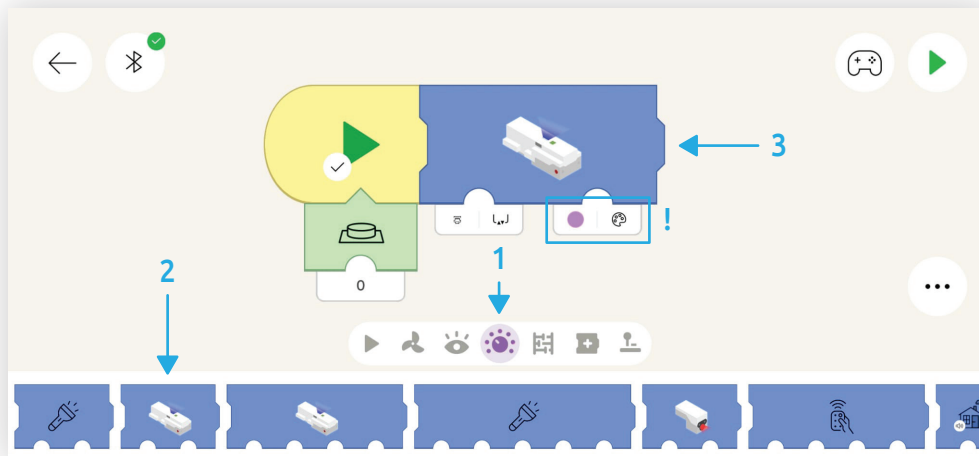
We recommend starting program creation by enabling Advanced Mode, which unlocks many additional blocks. To do this, press the "MORE OPTIONS" icon (three dots) and select the first option marked with a single brick, then change it to three bricks.



It is best to start assigning a function to a button by selecting a conditional start block and connecting the button widget to its input. The key step is to select the button number (remembered from the previous stage), which will be responsible for activating the given function.



Next, you can add an action block to the program. The first supported function is the ability to change the color of the indicator light. By using the color change block, you can choose one of the nine available options.



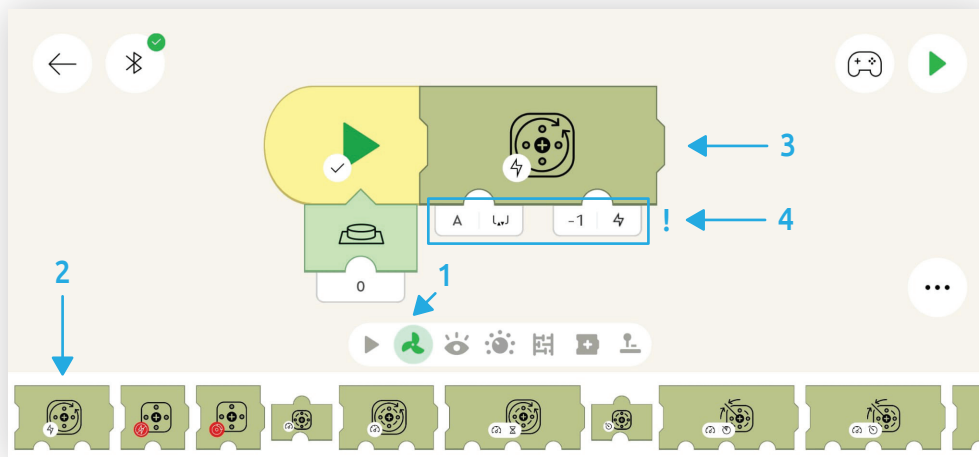
It is also possible to control the built-in servo mechanism by using the first available motor speed control block.

After selecting the appropriate output ("A" or "B"), you need to choose the desired movement by entering a positive or negative value in the speed field, marked with a lightning bolt icon.

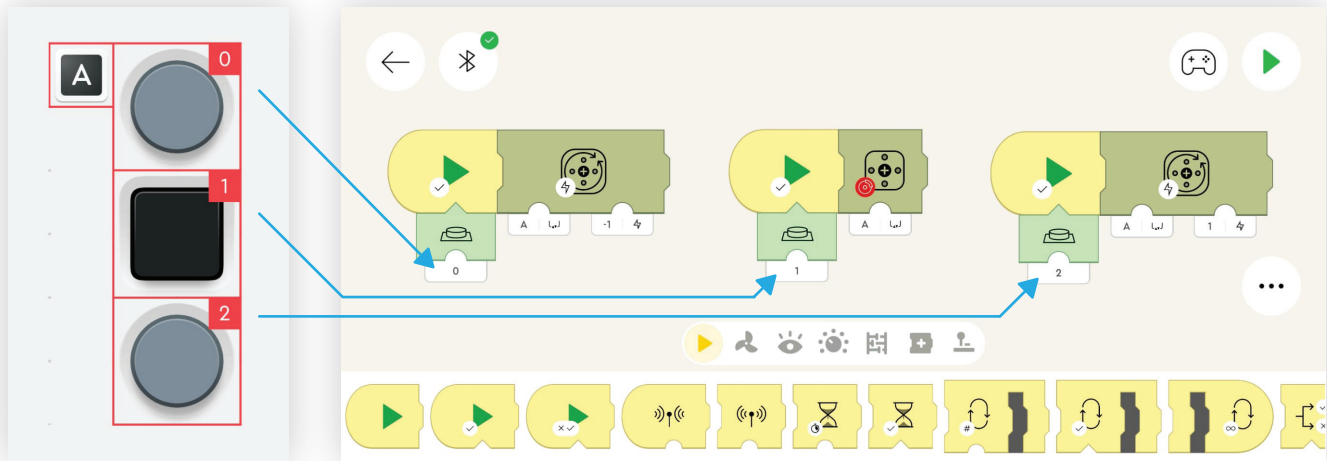
This works the same way as pressing the "+" and "-" buttons on the remote control.

For example, sending a positive value (e.g. 1) through the app will move the output to the first position, while sending a negative value (e.g. -1) will move it to the second position.

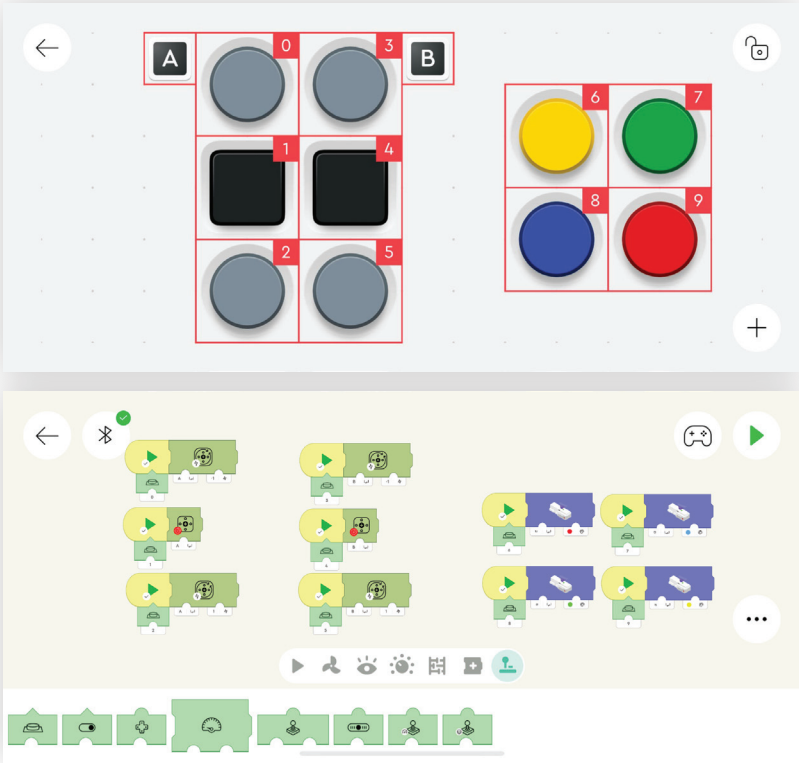
You can also make it switch automatically between positions by using the "stop" block (brake icon). This will trigger an automatic movement from the first position to the second, or from the second back to the first.



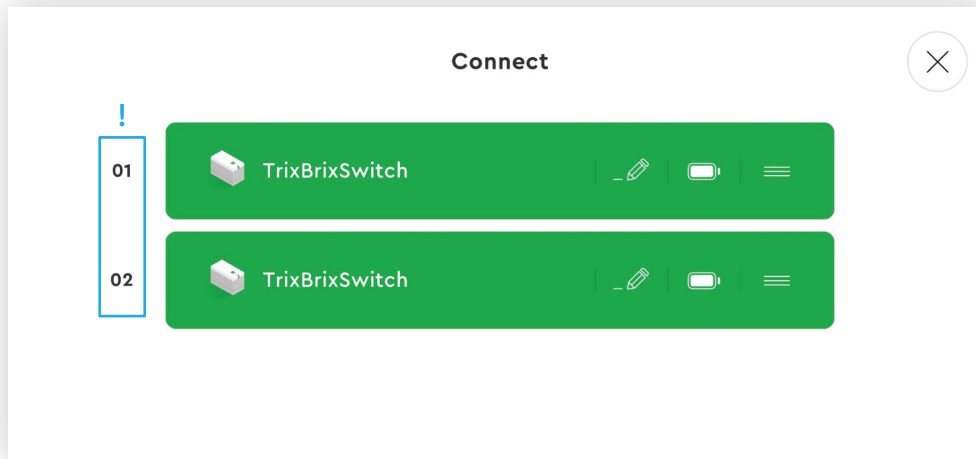
Building the program and assigning different functions to multiple buttons should be continued in the same way. Please remember once again that the button number in the control panel should correspond to the element responsible for triggering the desired function.



Here's an example of a program that controls all of the device's outputs and changes the indicator light colors:

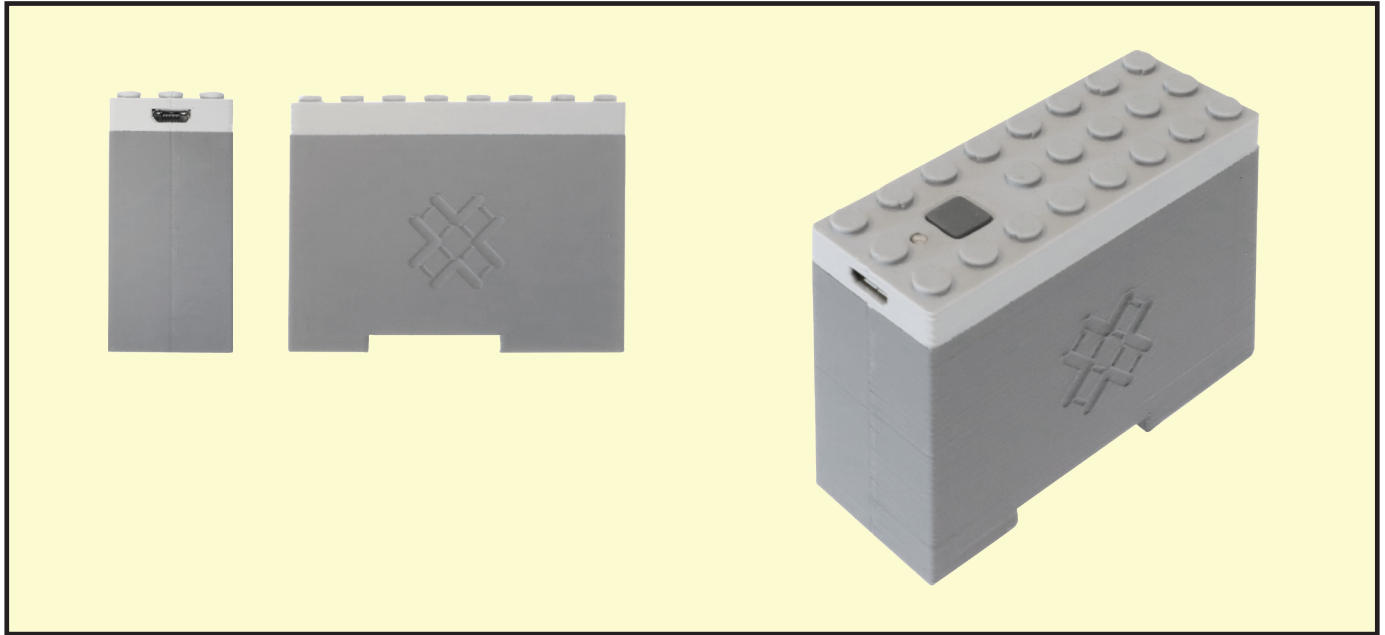


When controlling a larger number of wireless devices, it is necessary to specify in each action which device the command should be sent to. This can be done by replacing the output selection block ("A" or "B") with the device selection block. The number of each device corresponds to its position in the list in the Active Connections tab.





We also offer the **Switch Controller** – a wireless, battery-powered switch servo compatible with original switches.



Learn more at [www.trixbrix.eu](http://www.trixbrix.eu)









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