



photon

| discover the **magic**
| of modern **education**



photon

About our company



Photon Entertainment

Established in 2016

We believe that every child will have to get to know how to use new technologies in their future professional career. Our mission is to help them get these skills!

- Winner of MIT Business Acceleration Programme
- Winner of Microsoft Imagine Cup Programme
- Laureate of Forbes 30Under30 Ranking
- The fastest growing innovators in NewEurope100 Ranking created by Google and ResPublica
- #1 place in the most creative in business Brief Ranking
- Polish President Economic Reward for the best Startup
- The Best CEE Startup (EBAN Sofia 2018)

photon

What is Photon and why
should we use it?

Complex issue needs a **complex solution**

Photon is a modern **didactic tool** for educational institutions.

Photon teaches children how to:

- **think** logically,
- **solve problems** in many creative ways,
- **use** new technologies, coding skills and sensors for own purposes.



Didactic tool without barrier



Coding lessons made easy
no coding experience required



Suitable for students of all ages
from kindergartens to high schools



Compatible with most tools & devices
available in schools



Ready out of the box
no configuration required



Worldwide community of teachers
creating scenarios for all levels of education



One robot – two products



**Photon for
Education**

The center of STEM education universe.

The most universal STEM didactic tool for educators. Helps conducting coding, computer science and other coding-based lessons.



**Photon Home
Edition**

Robot that develops with kids!

Dedicated for the individual process of discovering new technologies through the gamification and storytelling application.

IMPORTANT!

Photon School Edition for educational institutions is **only** available at Photon Educational Partners distribution network.

The background is a dark purple color with a pattern of small, light purple icons representing various educational fields such as science (lightbulbs, microscope, planet), music (musical notes, guitar), art (pencil, paint palette), and general learning (books, gears, stars).

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Educational content

LESSON PLANS

Free of charge **educational content:**

- Basic scenarios (age 5-12)
- Programming scenarios (Age 12-16)

Over 100+ dedicated teaching materials will help to enhance lessons. As an effect students will remember classes for a long time.



Photon Lesson Plans

Curriculum for different age groups helps teachers prepare lessons. The booklets contain step by step instructions and lesson plans attachments. Conducting a lesson has never been easier.

Customisation Stickers



Four individual sets of stickers (Nature, Mechanical, Veteran or Aqua set). Choose the theme and transform your Photon into a butterfly or a warrior!

Educational Mat

It was created to help teachers provide engaging lessons. Educational mat's areas marked with action symbols, direction arrows or coordinates open new possibilities in creating interesting lesson scenarios.

Flashcards

Flashcards can be used to involve a whole class into programming. Children place flashcards in correct order by following Photons moves.



**Photon for
Education**

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How to operate Photon?

Applications

Official Photon Apps

(to be downloaded free of charge from App stores or Photon website)



Photon EDU

Application that is designed for teachers to be used with pre-designed lesson plans. Wide and diverse lesson plans base allows easy integration into classroom.



Photon Coding

Provides an open canvas for original lesson plan design. Discover the four interfaces for various age groups and make ideas real!



Photon Magic Bridge

A solution that allows you to connect up to 8 Photons to a computer or interactive whiteboard! Use it and gain access to original applications and commercial apps like Scratch, JavaScript and Python.



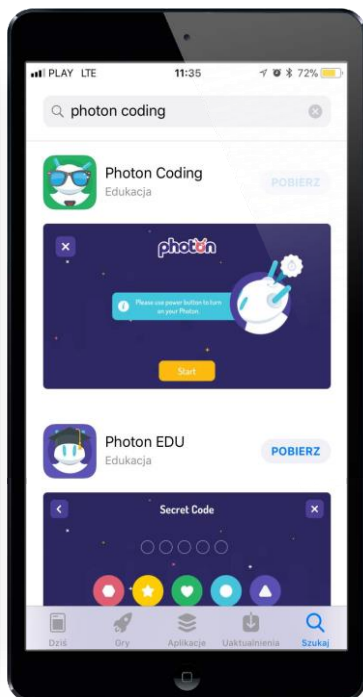
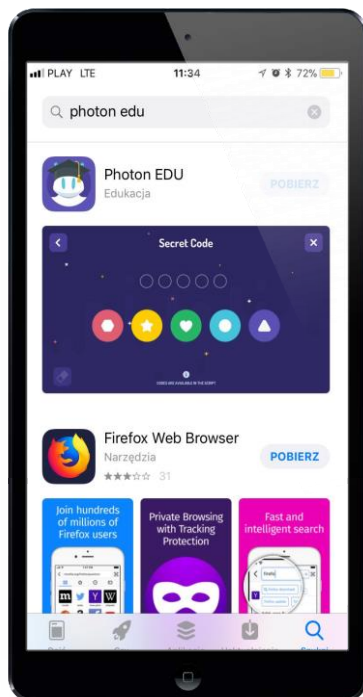
Download your application



Photon EDU



Photon Coding



Photon for Education

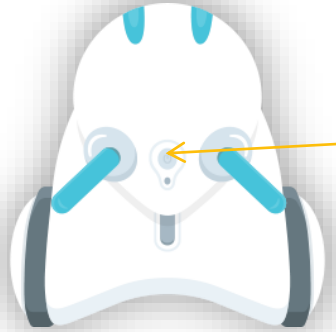
Run the app and connect your Photon



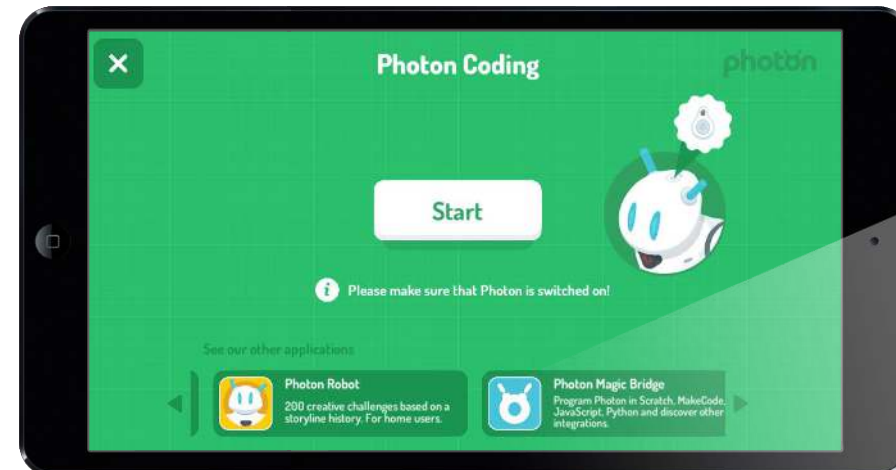
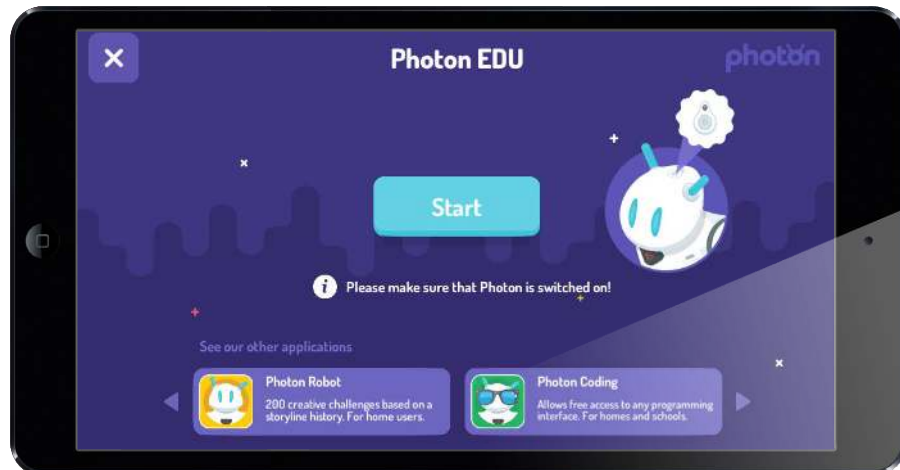
Photon EDU



Photon Coding



To turn your Photon on, press and hold the switch on button placed on the robot's head for 2 seconds. Robot's antennae and eyes will start blinking.



Run the app and connect your Photon



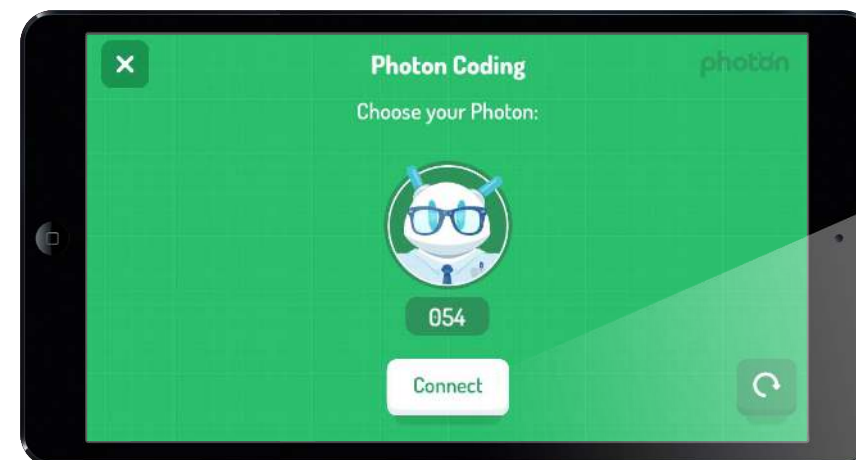
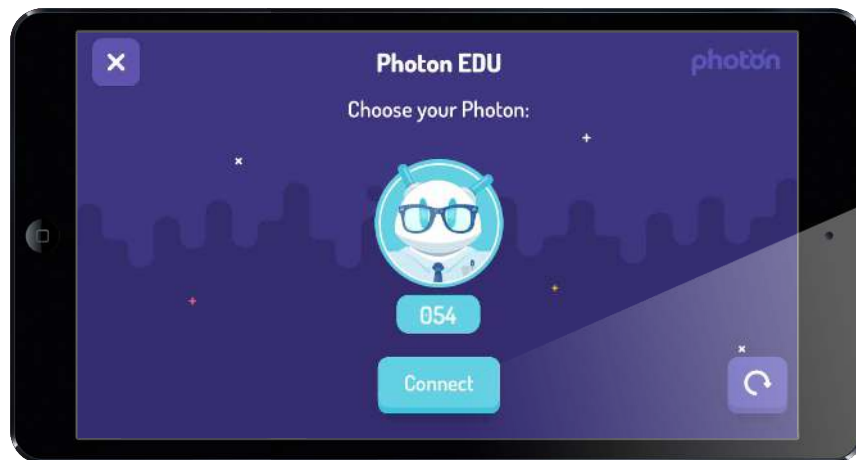
Photon EDU



Photon Coding



Each robot has its own ID number that helps to identify robots in the app. ID number consists of 3 digits and it is placed on Photons bottom part.



Run the app and connect your Photon



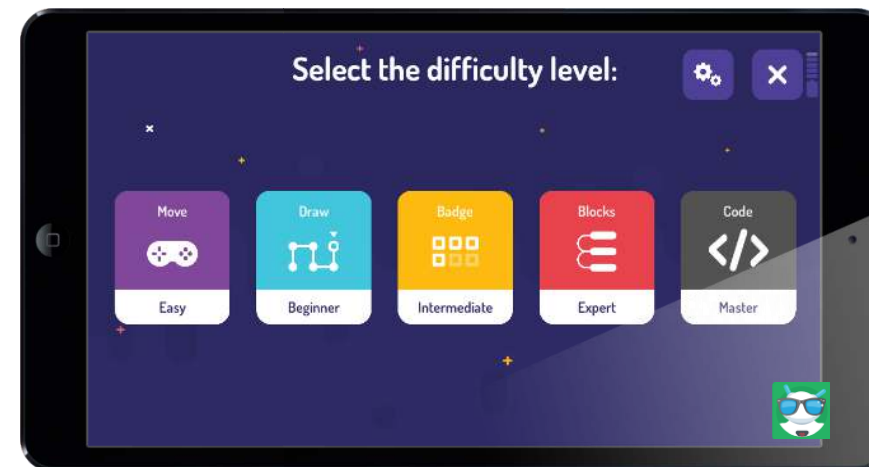
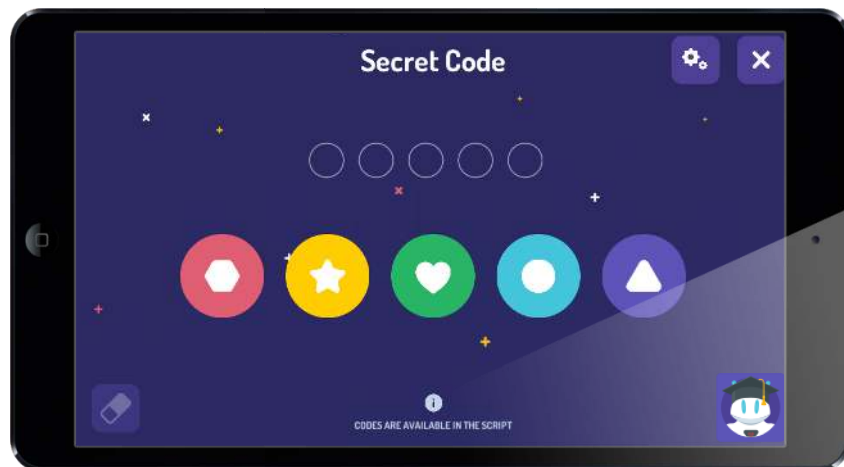
Photon EDU



Photon Coding



Each robot has its own ID number that helps to identify robots in the app. ID number consists of 3 digits and it is placed on Photons bottom part.



Photon Magic Dongle

This extension allows you to operate up to 8 Photons at the same time from PC and Laptops. Desktop application Photon Magic Bridge gives an access to the most popular coding tools on the market:



MakeCode



JavaScript



Scratch



Python



Azure IoT Hub

Download your application



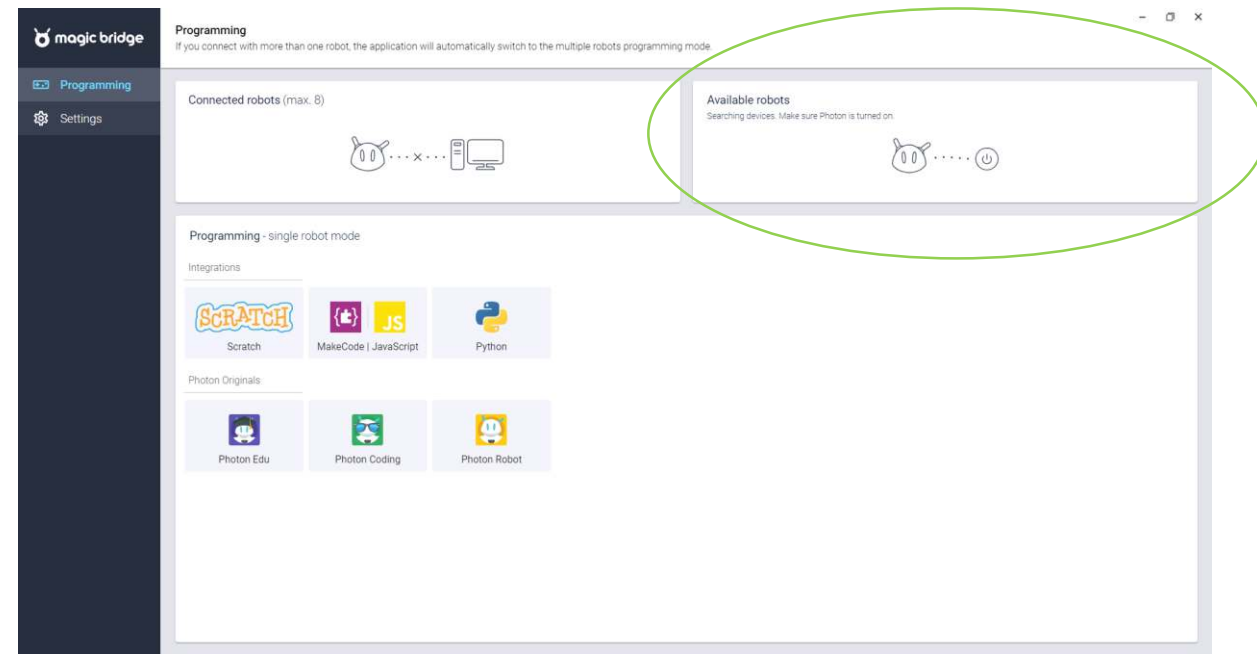
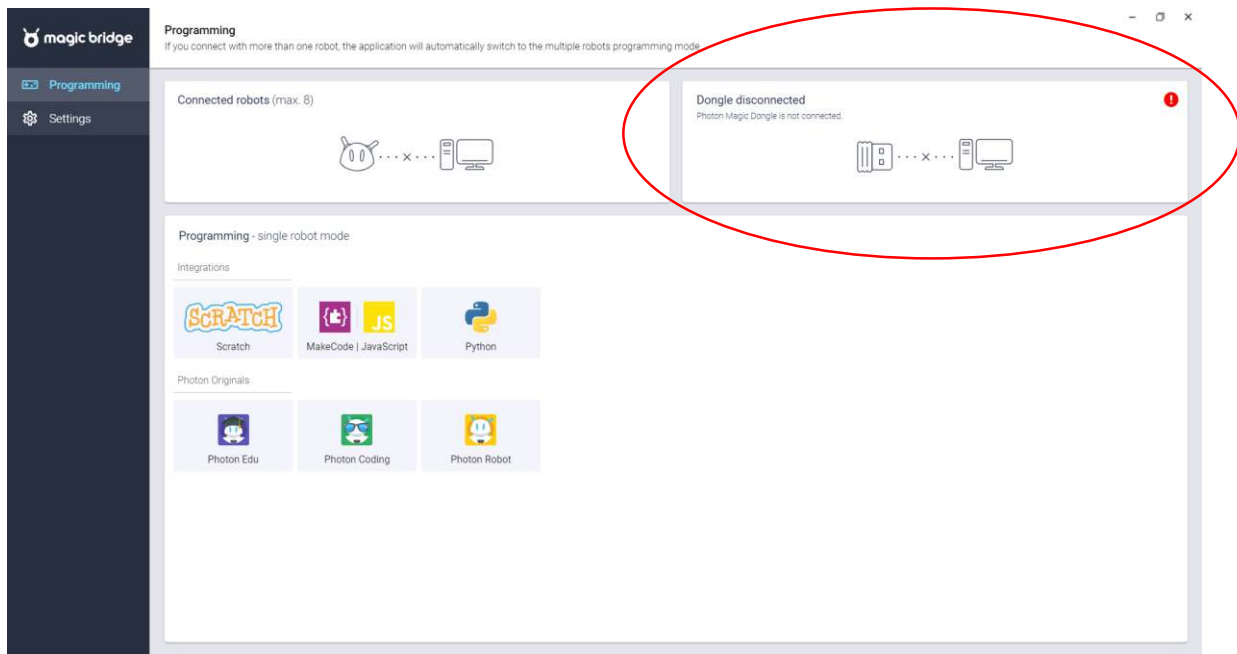
Photon Magic Bridge

<https://photonrobot.com/magic-bridge/>

The screenshot shows the Photon Magic Bridge website. At the top left is the Photon logo. The navigation menu includes 'Homepage', 'Robot', 'For home', 'Apps', 'Education', and 'Blog'. A 'SHOP' button is in the top right. The main heading is 'How to start?' followed by four numbered steps: 1. Connect Magic Dongle to computer, 2. Download Magic Bridge - it's free, 3. Connect to Photon Robots, and 4. Use interactive whiteboard or Educational Mat if you like. Below this is the 'Download Magic Bridge App' section with buttons for 'WINDOWS', 'MAC', and 'CHROME OS'. Underneath is the 'Download Magic Dongle drivers' section with a 'DRIVERS' button. A footnote at the bottom states '*required for Windows 7 and Windows 8.1'.

Photon for
Education

Connect Photon Magic Dongle



Connect your Photons

magic bridge

Programming

If you connect with more than one robot, the application will automatically switch to the multiple robots programming mode.

Connected robots (max. 8)

Available robots

- D04 **Connect**
- 031 **Connect**

The interface features a dark sidebar with the 'magic bridge' logo and navigation options for 'Programming' and 'Settings'. The main content area is divided into two panels: 'Connected robots' and 'Available robots'. The 'Available robots' panel shows two robot cards, each with a battery icon, a robot icon, and a 'Connect' button.

magic bridge

Programming

If you connect with more than one robot, the application will automatically sw

Connected robots

- D04 **Disconnect**

Available robots

- 031 **Connect**

magic bridge

Programming

If you connect with more than one robot, the application will au

Connected robots (max. 8)

- D04 **Disconnect**
- 031 **Disconnect**

This block contains two side-by-side screenshots of the Magic Bridge interface. The left screenshot shows robot D04 in the 'Connected robots' panel with a 'Disconnect' button, and robot 031 in the 'Available robots' panel with a 'Connect' button. The right screenshot shows both robots D04 and 031 in the 'Connected robots' panel, each with a 'Disconnect' button. The sidebar and header elements are consistent with the first screenshot.

Choose your coding app by clicking on it

The screenshot shows the 'magic bridge' interface. On the left is a dark sidebar with 'magic bridge' at the top, 'Programming' (highlighted with a blue bar), and 'Settings'. The main area is titled 'Programming' and includes a window title bar with minimize, maximize, and close buttons. Below the title is a note: 'If you connect with more than one robot, the application will automatically switch to the multiple robots programming mode.' The interface is divided into two main sections. The top section has two panels: 'Connected robots' showing a robot 'D04' with a 'Disconnect' button, and 'Available robots' showing a search status and a diagram of a robot connected to a power source. The bottom section is titled 'Programming - single robot mode' and contains 'Integrations' with buttons for Scratch, MakeCode | JavaScript, and Python, and 'Photon Originals' with buttons for Photon Edu, Photon Coding, and Photon Robot.

magic bridge

Programming

If you connect with more than one robot, the application will automatically switch to the multiple robots programming mode.

Connected robots

D04

Disconnect

Available robots

Searching devices. Make sure Photon is turned on.

Programming - single robot mode

Integrations

Scratch

MakeCode | JavaScript

Python

Photon Originals

Photon Edu

Photon Coding

Photon Robot



Integrations



Scratch

Block-based visual programming language allowing children create online projects using a block-line interface.



Microsoft MakeCode

Open source platform teaching coding via block connecting.



JavaScript

Open source platform teaching coding via JavaScript editor.



Python

This advanced programming language teaches coding using script. Get Photon and go to the next level with Python.



Swift Playgrounds

Teach Apple Swift programming language with Photon Robot. Download the app on iPad, connect the robot and discover new possibilities.



Azure IoT Hub

Thanks to two-way communication with Azure it is now possible to transfer data obtained from robot's sensors to cloud architecture, process it in the cloud and send instructions to the robot.



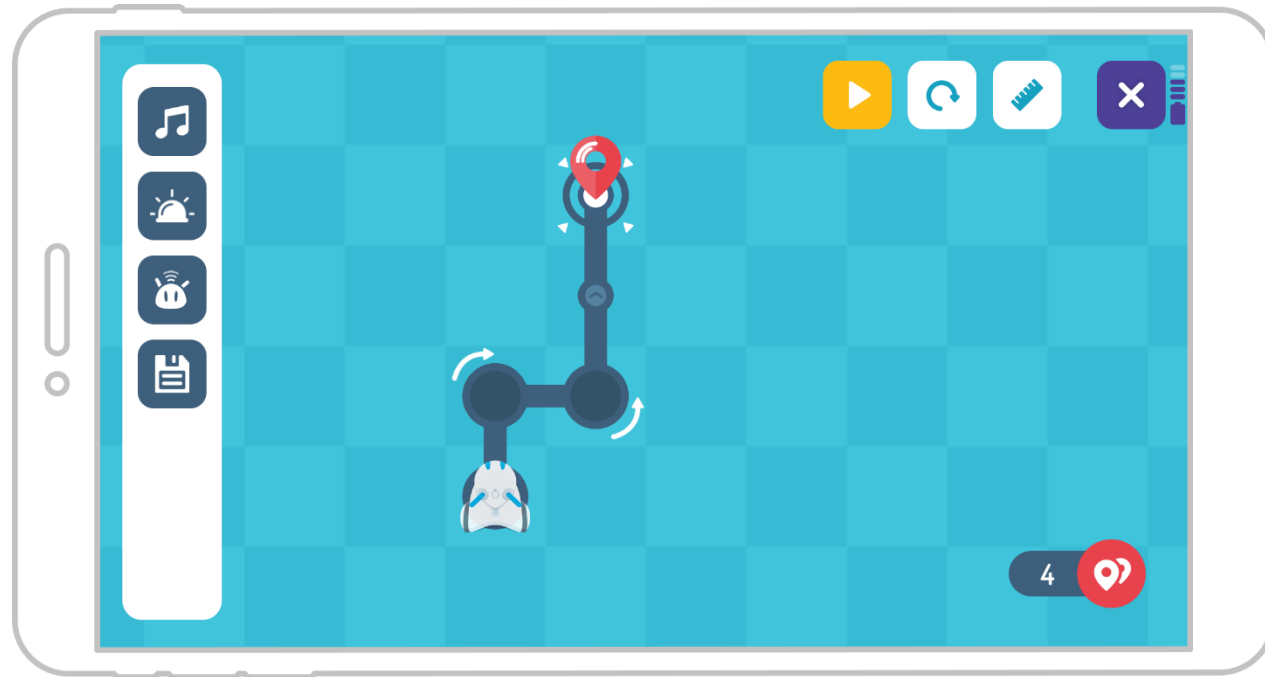
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Applications' interfaces

Our approach to various age groups

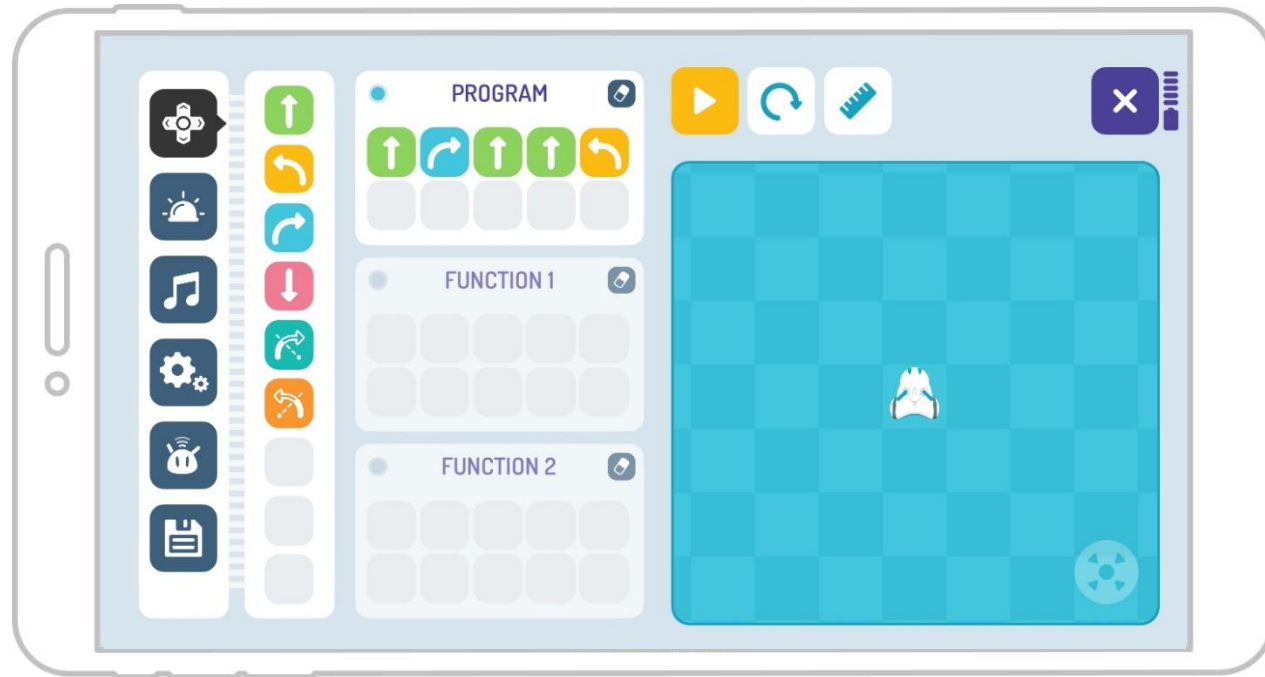
Photon Draw

Coding through path drawing. Recommended for 5-7 year-old children.



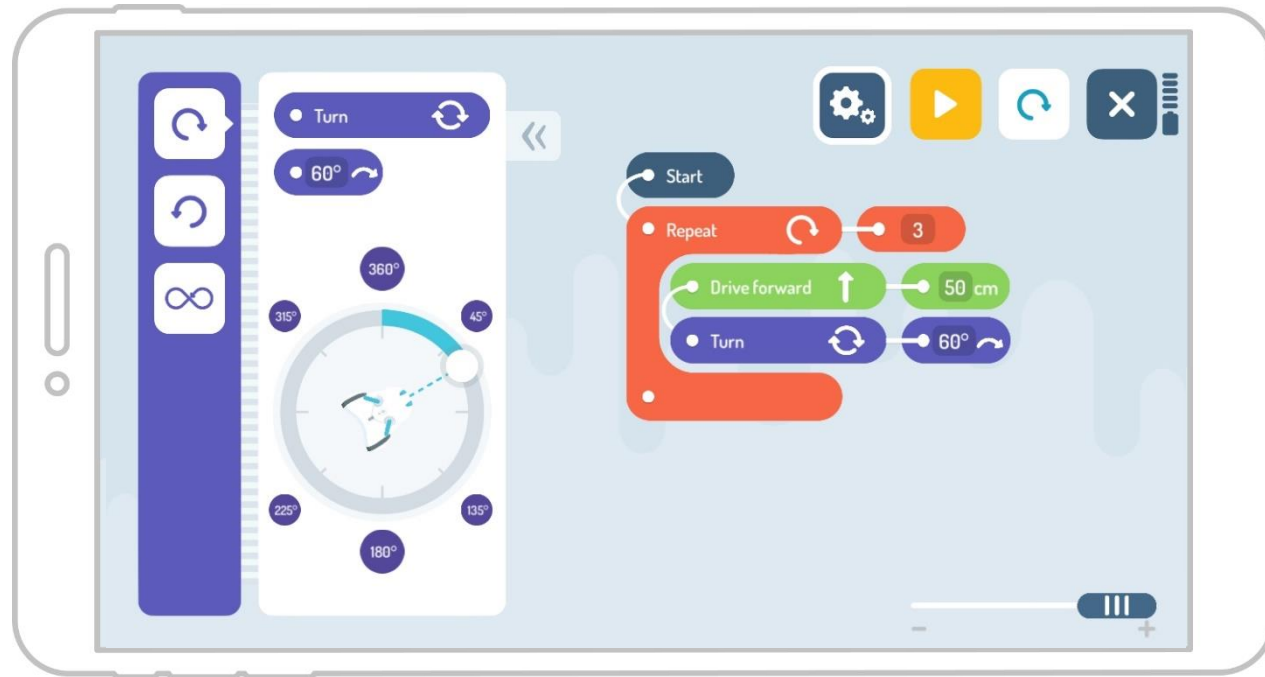
Photon Badge

Creating a program using instructions with symbols. Recommended for 7-9 year-old children.



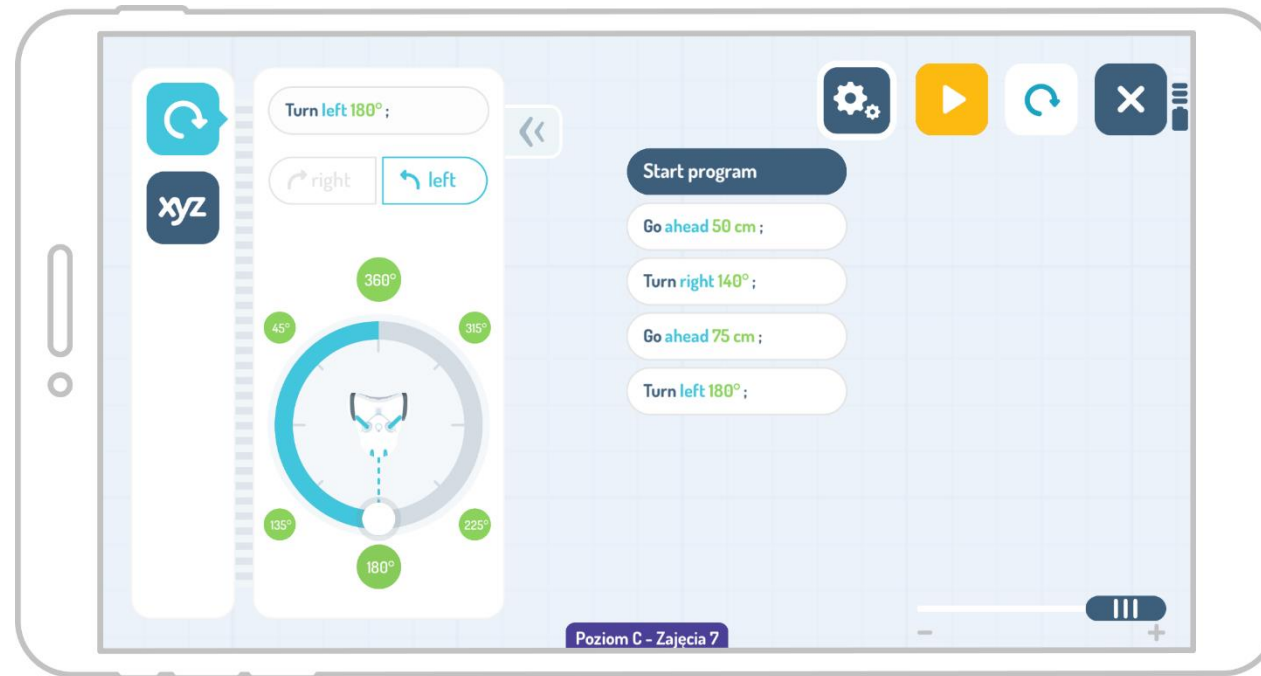
Photon Blocks

Coding through blocks matching and configuration. Recommended for 9-11 year-old children.



Photon Code

Creating sequences similar to real programming. Recommended for 11-12 year-old children.



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Applications' interfaces

Sample programs

Photon Blocks

Avoiding obstacles



Photon Blocks

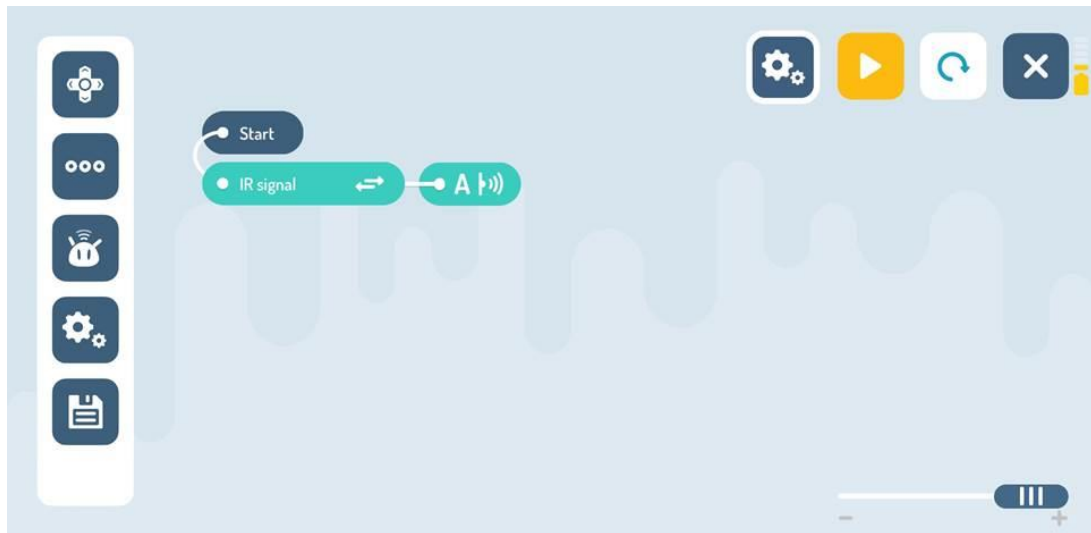
Touch detection

The screenshot displays the Photon Blocks programming environment. On the left is a vertical toolbar with icons for: a crosshair, three dots, a robot head with a signal, a gear, and a document. The main workspace contains a script starting with a 'Start' block, followed by a 'Repeat' loop (indicated by a red block with a refresh and infinity icon). Inside the 'Repeat' loop is an 'If' block (orange block with a question mark and a hand icon). The 'If' block contains three 'Change color' blocks (black blocks with a lightbulb icon) and one 'Sound' block (green block with a musical note icon). Below the 'If' block is an 'Else' block (orange block with an 'X' icon), which also contains three 'Change color' blocks and one 'Sound' block. On the right side of the workspace, there are four control buttons: a gear icon, a play button, a refresh button, and a close button. At the bottom right, there is a volume slider with a blue bar and a plus sign.

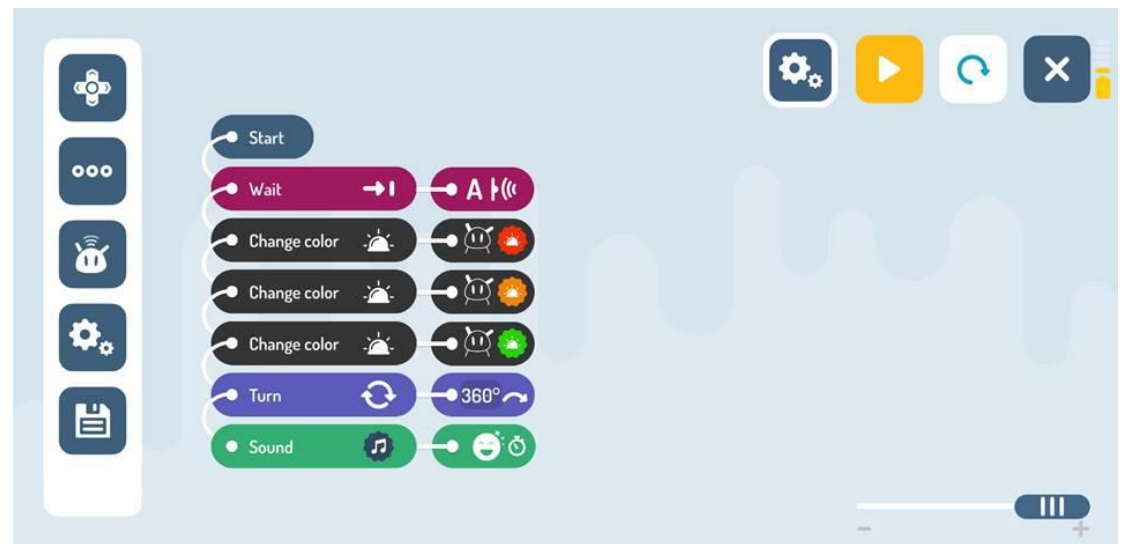
Photon Blocks

Interrobot communication

Robot no. 1



Robot no. 2

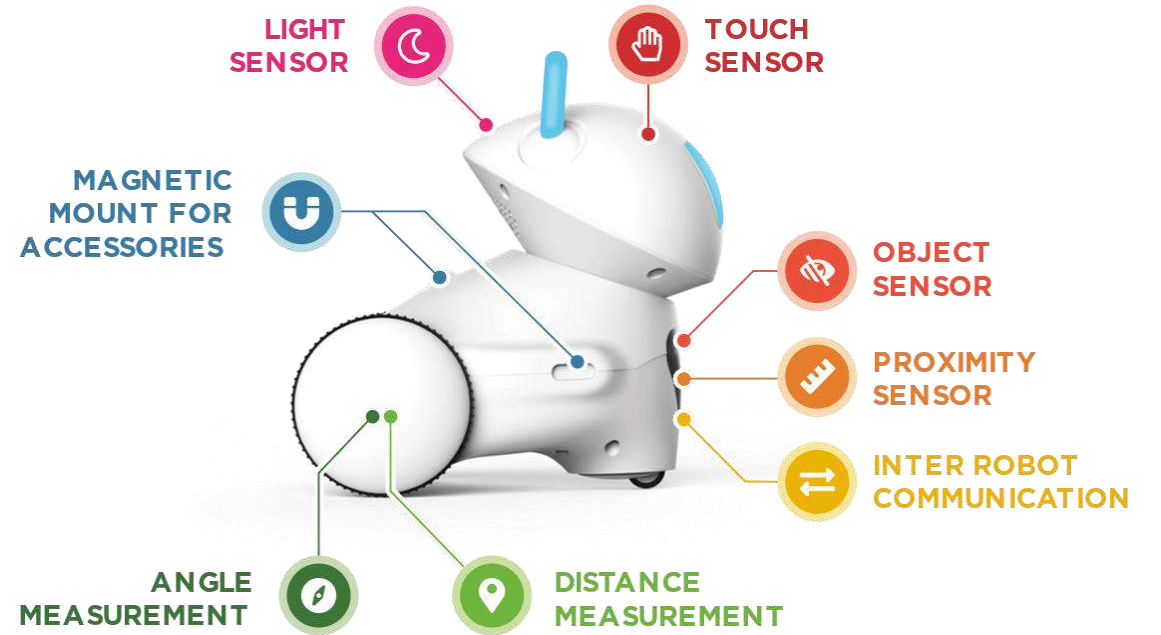


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What can Photon do?

Sensors & technical details

Photon sensors



Technical informations

Battery life up to 8 hours

Battery charging time up to 3 hours

Charging via the microUSB port

Power built-in Li-ion battery

Safety construction compact, closed

Housing materials PC and EARSTAR

Certificates CE (RoHS, EN-71)

Warranty 24 months





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Where are you Photon?

International presence













Over 14 000 Photon robots are used as a didactic tool
in thousands of schools



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Photon for
Education

Product internationalisation

	Applications	Lesson plans	Packaging*
 ENGLISH	TRANSLATED	ADAPTED	DEFAULT
 DUTCH	TRANSLATED	TRANSLATION IN PROGRESS	ON THE REGIONAL SLEEVE (ON DEMAND)
 GERMAN	TRANSLATED	ADAPTED	ON THE REGIONAL SLEEVE (ON DEMAND)
 SPANISH	TRANSLATED	ADAPTED	ON THE REGIONAL SLEEVE (ON DEMAND)
 FRENCH	TRANSLATED	TRANSLATION IN PROGRESS	ON THE REGIONAL SLEEVE (ON DEMAND)
 ITALIAN	TRANSLATION IN PROGRESS	TRANSLATION IN PROGRESS	ON THE REGIONAL SLEEVE (ON DEMAND)
 CHINESE	TRANSLATION IN PROGRESS	TRANSLATION IN PROGRESS	ON THE REGIONAL SLEEVE (ON DEMAND)
 ARABIC	TRANSLATED	TRANSLATION IN PROGRESS	ON THE REGIONAL SLEEVE (ON DEMAND)
 POLISH	TRANSLATED	ADAPTED	NOT AVAILABLE
 CZECH	TRANSLATED	ADAPTED	NOT AVAILABLE
 SLOVAK	TRANSLATED	ADAPTED	NOT AVAILABLE
 SWEDISH	TRANSLATED	ADAPTED	NOT AVAILABLE

* in case of a bulk order exceeding 3000 Photon units, it is possible to create a dedicated packaging for a given market.

International recognition



President of Poland (Andrzej Duda)

International recognition



The Duke and Duchess of Cambridge



German Chancellor (Angela Merkel)



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