# pi-top

# Ignite your students' passion for STEAM



Product catalogue

# pi-top helps to build skills for the future.

From coding basics to advanced AI concepts, pi-top provides educators with all the tools they need to make learning STEAM concepts fun and easy.

Find out more here!





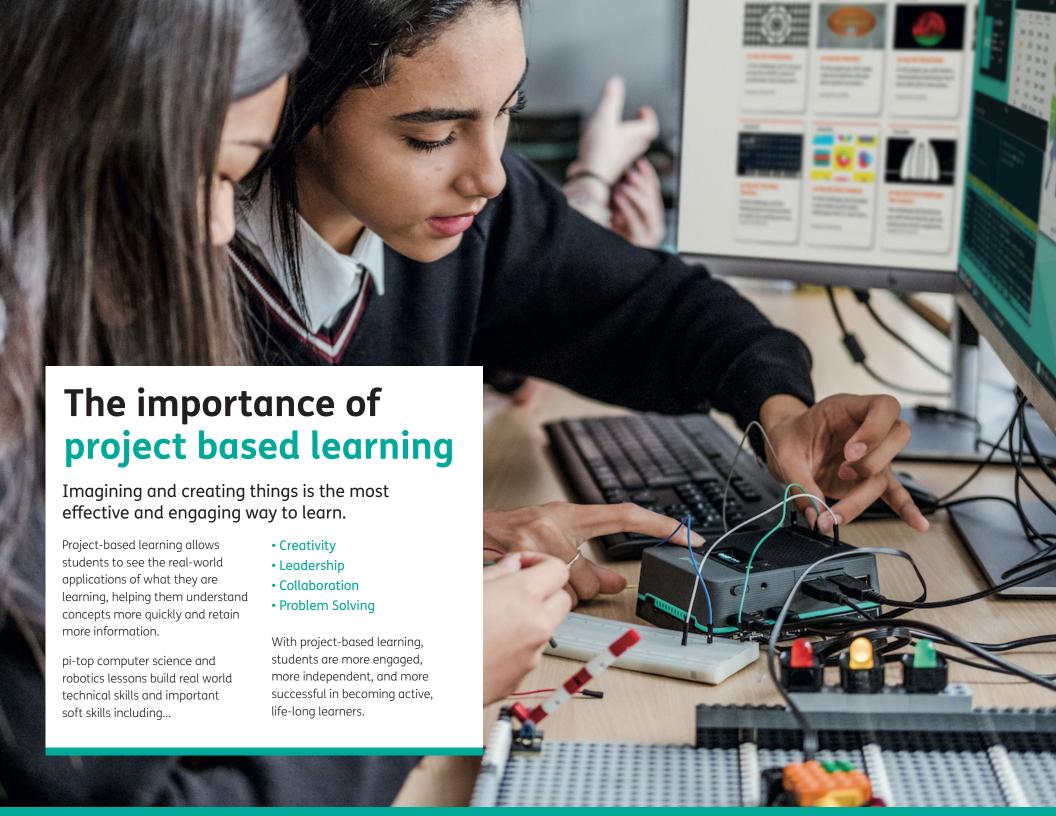




# **Contents**

INTRODUCTION ————————————————————————————————————	
The importance of project based learning	4
Getting started with pi-top	6
PI-TOP SOFTWARE	
Further - Online Project Library	8
PI-TOP HARDWARE	
pi-top [4]	10
Electronics Superset	12
Robotics Superset	14
Robotics & Electronics Superset	18
Accessories	20
Product price list	22

© 2021 CEED Ltd.





# Further **4** Online project library From beginner to advanced, Further offers over 100 hours of exciting Computer Science projects and == \*\*\*\* activities using your pi-top products. **Register** with Clever or Aligned to a range **Training sessions** of standards

& facilitator guides

We provide training and professional development

classroom for better learning outcomes.

to help educators use pi-top's ecosystem within their

**Google Classroom** 

Sync your classes and students with Further - no manual set-up. Talk with us about integrating with other cloud-based LMS.

## Engaging real-world projects.

Engaging, hands-on projects provide students with the tools to explore a wide range of computer science and physical computing skills.

From a rocket launch animation that is executed by the push of a button, to making their own musical instrument, students are inspired and engaged in learning the in-demand STEAM skills they will need in a rapidly changing world.

## Remote learning ready

Students working from home can program robots and experiments remotely!

### Collaborative workflow

Several students can work together on their submissions to learning challenges.

### **PDF Downloads**

Any of the projects in Further can be downloaded as a PDF for use as a printable handout.

## **Customise** your projects

Teachers can add or remove sections, and change them to reference items available in their school.

## **Monitor your** students' progress

Include tasks within projects that students need to complete. At any time, you can view student responses to tasks and give feedback using comments.

Filter content based on

curriculum requirements, to

and experience they need.

ensure students have the skills

# pi-top<sup>[4]</sup>

# The simplest way to start with Computer Science

pi-top [4] is a portable brain that can be clipped from project to project without needing to rebuild.

The pi-top [4] powers project created with our Robotics and Electronics Kit, and also works with a range of products you might already have at school or home, like Arduino or micro:bit.



Full access to Raspberry Pi's GPIO pins & ports

Female 40-pin connector with labeled ports puts an end to pesky bent pins.



**USB-C Power Delivery** 

specification at 15V for faster battery charging.



**UPS-style soft** shutdown system

This system includes soft shutdown & UPS to avoid SD card corruption.



5-hour internal battery

Go anywhere & keep your projects running for longer.



Integrated heat sink & centrifugal cooling fan

Make temperature regulation a breeze, even with overclocking.



**OLED screen & buttons** 

Fully programmable mini screen & buttons.

## Many ways to connect:



Code on your laptop, tablet or desktop computer



Code with a HDMI Monitor, Keyboard and Mouse



Code using our FHD Touch Display & Bluetooth Keyboard



Classroom

packs

See page 22



# Start making in minutes!

Control lights and sounds with sensors, buttons and potentiometers. Begin with a few lines of code to turn on an LED when a button is pressed. Progress with additional components and code.

## Beginner to advanced level

Implementing pi-top products in the classroom is easy! Our step by step guides walk you through setting up and getting started with projects that will excite and engage your students.

### Over 100 hours of projects!



#### WHAT'S INCLUDED?

#### pi-top [4] Complete portable computer\*

Pre-installed Raspberry Pi 4 4GB Power Supply Unit (PSU) pi-top Display Cable - HDMI & USB adapters pi-topOS on 16GB SD Card

#### **Electronics Kit\***

- 1x Foundation Plate
- 1x Ultrasonic Sensor
- 1x Buzzer
- 1x Light Sensor
- 1x Sound Sensor
- 2x Potentiometers
- 2x Green LEDs
- 2x Yellow LED
- 2x Red LEDs
- 2x Buttons
- 8x LEGO® Connectors

Connecting cables

Age: 11-100

**Skill level:** Beginner - Intermediate

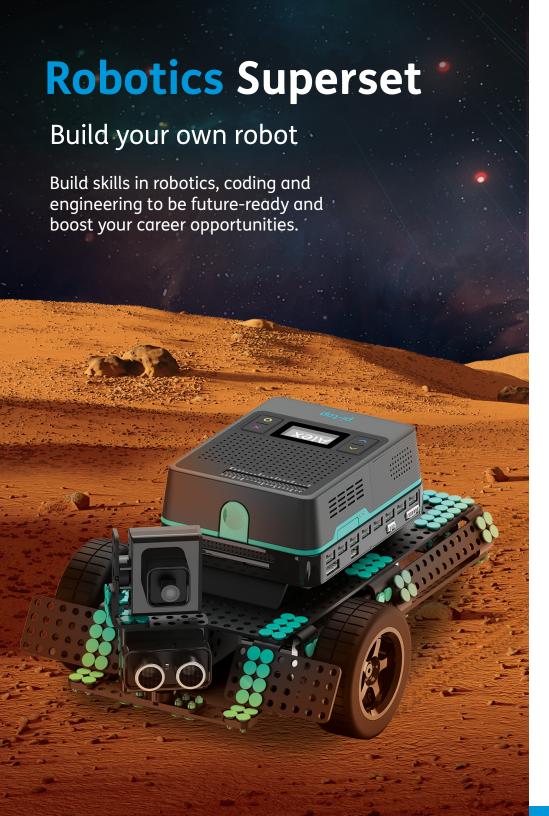
#### Requirements:

You'll need to connect to your pi-top [4] to a monitor, keyboard & mouse, or a laptop, tablet or our FHD Touch Display and Bluetooth Keyboard. You will also require an internet connection to access our Further project library.

\*The pi-top [4] & Electronics Kit are also available separately. See our price list on page 22 for full breakdown.



© 2021 CEED Ltd. 13





# Everything you need to build a robot

With 50+ metal build plates, servo motors, encoder motors, wheels, camera, ultrasonic sensor and more, the pi-top [4] Robotics Kit includes all the components you need.



Engaging content in Further, provides easy-to-implement projects that combine technology with real life activities, keeping kids excited to learn.

### WHAT'S INCLUDED?

#### pi-top [4] portable computer

Pre-installed Raspberry Pi 4 4GB Power Supply Unit (PSU) pi-top Display Cable -HDMI & USB adapters pi-topOS on 16GB SD Card

#### Robotics Kit

1x Expansion Plate 1x Chassis plate 50+ aluminium 6x Coloured balls construction pieces 2x Tyres

x250 rivets 1x Rivet removal tool
2x Servo motors 2x Hex Allen keys
2x Encoder motors 1x Roll of blue line
1x Ultrasonic sensor following tape

1x HD 720p Camera 1x Castor wheel 1x Phillips screwdriver

2x 12mm Wheel connectors

**Age:** 11-100

**Skill level:** Beginner - Advanced

### Requirements:

You'll need to connect to your pi-top [4] to a monitor, keyboard & mouse, or a laptop, tablet or our FHD Touch Display and Bluetooth Keyboard. You will also require an internet connection to access our Further project library.

\*The pi-top [4] & Robotics Kit are also available separately. See our price list on page 22 for full breakdown.

© 2021 CEED Ltd. 15

# **Unlimited** configurations















Avoidance

Obstacle Autonomous Object

Driving Recognition

**Emotion** Mapping

Interaction

Tracking Recognition

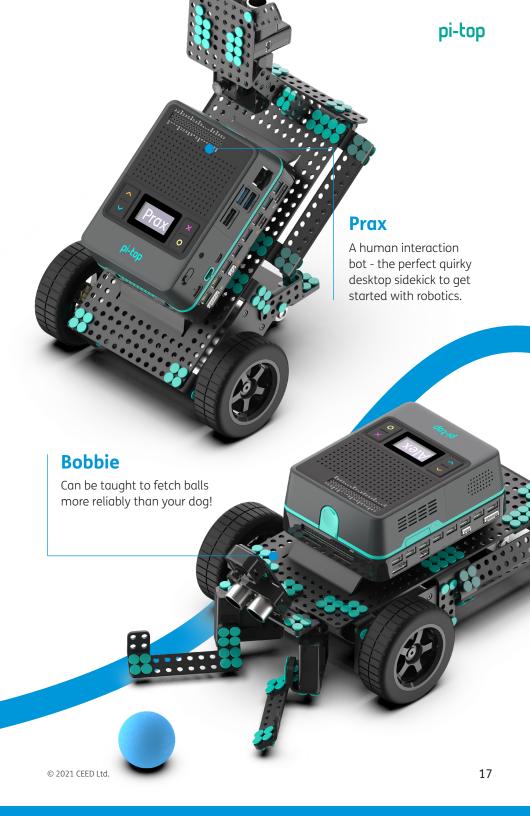
## Alex





## Deploy code remotely

Further, our online project library can be accessed from any computer such as Chromebook, Mac, PC or a pi-top device. Our Code Runner boxes allow students to write code on their computers, send code to the pi-top [4] for execution, and interact with it in real-time. You can even control your robot from your phone!





# Robotics and electronics Superset

# Perfect for the classroom

Build rovers and robots with additional components for more advanced projects. Engaging lessons include object recognition, autonomous driving, rapid prototyping and IoT.

WHAT'S	INCLUDED?	

**pi-top [4] portable computer** Pre-installed Raspberry Pi 4 4GB Power Supply Unit (PSU)

pi-top Display Cable pi-topOS on 16GB SD Card Electronics Kit

Control lights and sounds with sensors, buttons, potentiometers and more! (See page 14) **Robotics Kit** 

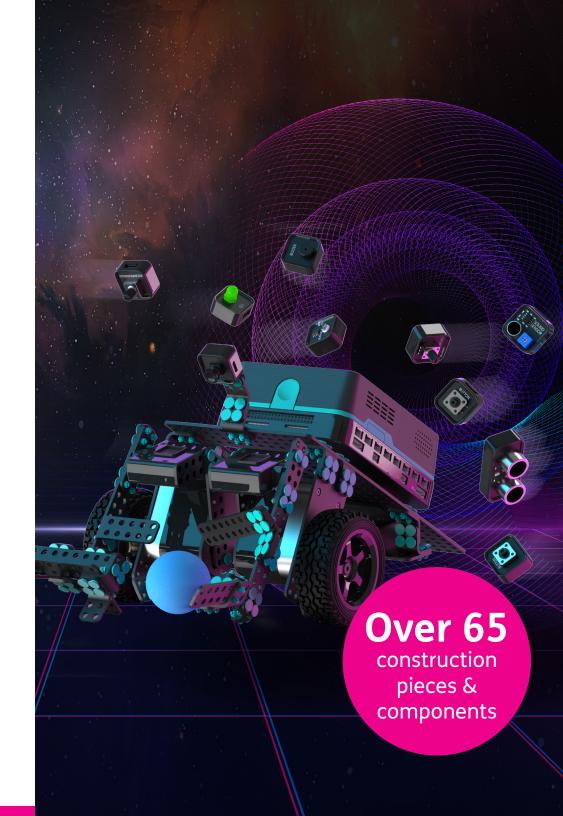
Build and code robots with 50+ build plates, motors, wheels, camera, ultrasonic sensor and more. (See page 16)

Age: 11-100

**Skill level:** Beginner - Advanced

#### Requirements:

You'll need to connect to your pi-top [4] to a monitor, keyboard & mouse, or a laptop, tablet or our FHD Touch Display and Bluetooth Keyboard. You will also require an internet connection to access our Further project library.



# **Accessories**



## **Bluetooth Keyboard**

The pi-top Bluetooth Keyboard works as a durable screen protector for your pi-top FHD Touch Display.

It magnetically attaches to the base of the pi-top FHD Touch Display — no need for switches, plugs and pairing.



## **FHD Touch Display**

Code and create using the touch of your finger with the pi-top FHD Touch Display. Sleek and light, it is compatible with a wide array of devices, including the Raspberry Pi and pi-top [4].



## **Protective Case**

Add a splash of colour and protect your pi-top [4] from knocks and bumps.







# **Product price list**

## Hardware

PRODUCT	DESCRIPTION	UNIT PRICE (MSRP)
pi-topid	pi-top [4] portable computer  Pre-installed Raspberry Pi 4 4GB  Power Supply Unit (PSU)  pi-top Display Cable -HDMI & USB adapters  pi-topOS on 16GB SD Card	£145.96
pi-topid	pi-top [4] DIY Edition Portable computer  Screwdriver, screws Male-to-female headers CSI and DSI cables 2 x USB Plugs Thermal Pads for Raspberry Pi	£72.96
pi-top <sup>cd</sup>	Electronics Kit  1x Foundation Plate 1x Ultrasonic Sensor 2x Fotentiometers 2x Green LEDs 2x Yellow LED 1x Light Sensor 2x Red LEDs 1x Sound Sensor 2x Buttons  8x LEGO Connectors Connecting cables Connecting cables	£58.36
G	Robotics Kit  1x Expansion Plate Construction pieces x250 rivets 1x Castor wheel 1x Castor wheel 2x Servo motors 2x Encoder motors 1x Cuttrasonic sensor 1x Chassis plate 1x Castor wheel 2x Wheel connectors	£145.93

Supersets		UNIT PRICE (MSRP)	CLASSROOM PACK PRICE
	Electronics Superset (pi-top [4] with the Electronics Kit)  • pi-top [4]  • Electronics Kit	£204.33	x12 Supersets +1 Year licence to Further £2,402.33

pi-top"	Robotics Superset (pi-top [4] with the Robotics Kit)  pi-top [4] Robotics Kit	£291.89	x12 Supersets +1 Year licence to Further £3,400.55
---------	---	---------	---

pi-topiii	Robotics & Electronics Superset (pi-top [4] with the Robotics & Electronics Kits)  • pi-top [4] • Robotics Kit • Electronics Kit	£327.77	x12 Supersets +1 Year licence to Further £3,809.58
-----------	--	---------	---

## **Accessories**

PRODUCT	DESCRIPTION	UNIT PRICE (MSRP)
	FHD Touch Display  11.6" Touchscreen  pi-top Display Cable  pi-top Display Adapter	£138.66
	Bluetooth Keyboard Charge time: 1 hour Use time: 36 hours	£32.81
	Protective Case	£10.91
	pi-top Display Cable  Display Cable  HDMI & USB adapters	£10.91
	pi-top [4] Power Supply Unit 15V 36W USB-C PD Power Supply for pi-top [4]	£14.56
	pi-top [4] DIY Edition Accessory Bundle  pi-top Display Cable  pi-top [4] Power Supply Unit  pi-topOS SD Card. Adapter included.	£32.74

Further		HOME LICENSE	CLASSROOM LICENSE
Further	Online Project Library From beginner to advanced, Further offers over 100 hours of exciting projects and activities using your pi-top products.	<b>FREE</b> with every pi-top [4]	Contact us for more information sales@pi-top.com



## We make the future.

pi-top is one of the fastest growing ed-tech companies and has a unique vision to increase access to coding and technical education through project-based learning. We want to inspire a generation of makers and give them the skills they need in a rapidly changing world.

pi-top.com









