



CODING

IN

SCHOOLS

We bring STEAM to life

Rapid
education

www.rapidonline.com

Rapid Education part of the **CONRAD** Group

CODING AT KEY STAGES



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Also available for KEY STAGE 1 & 2: Dobot Primary Magician Lite, Fable and Nao robot.



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Also available for KEY STAGE 3+: Airineers, Dobot Magician, Dobot Vision, Fable and Nao robot.



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Also available for Further Education: Diligent, Discovery Boards, Airineers, Dobot Magician, Dobot Vision, Fable and Nao robot.

HANDS UP WHO WANTS A SCHOOLS DISCOUNT?

- ✓ Prices reduced on thousands of products
- ✓ Applies to credit & cash accounts
- ✓ No need to sign up if you have an account*

*If you have an account these prices are already applied when you sign in to the website

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Get in touch. To contact us (via email) with any queries, comments or feedback, please complete the contact form. Please note that we require at least a name and email address to get back to you.
www.rapidonline.com/contact.

WELCOME TO THE CODING IN SCHOOLS MINI CATALOGUE.

The UK takes coding education seriously. Since 2013 it has been part of the National Curriculum and the UK is one of only three countries in Europe to have compulsory coding lessons in primary schools. Coding is vitally important because of the way it fosters logical thinking, problem solving and equips students for the jobs of the future.

According to the Department for Education, the National curriculum for Computing aims to ensure that all pupils:

Can understand and apply the fundamental principles and concepts of computer science

Can analyse problems in computational terms, and have practical experience of writing computer programs in order to solve such problems

Can evaluate and apply information technology – including new or unfamiliar technologies – analytically to solve problems

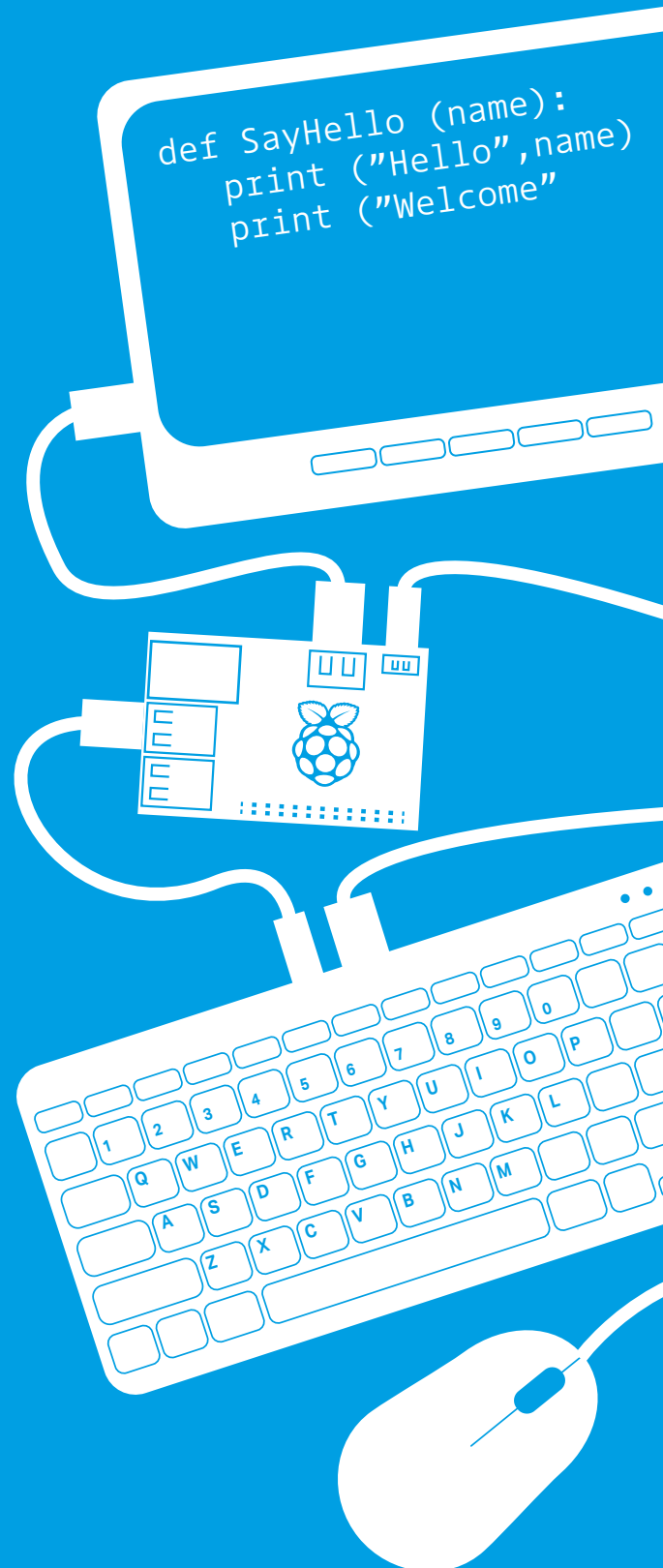
Become responsible, competent, confident and creative users of information and communication technology

At Rapid we are passionate about the importance of coding in the classroom. Our product ranges cater for children at every Key Stage, from Dash and Dot with their block-based programming to the more advanced coding required to work with the Raspberry Pi and Arduino platforms. Whether it's Scratch, Python, C++ or another language, we have the coding curriculum covered.

In these pages you will find a comprehensive range of single board computing and robotics products and projects, from both leading and up and coming brands. To see the complete range of products, and for up-to-date prices and stock information, please visit: www.rapidonline.com/education.

Unfortunately due to Covid-19 restrictions we are unable at the present time to offer our full range of post-purchase services, from CPD days to product workshops and teacher training sessions, but we do have an expanding range of online teaching resources to help with both classroom and remote learning. These can be found at www.rapidonline.com/steam-lab.

Keep calm and carry on coding!

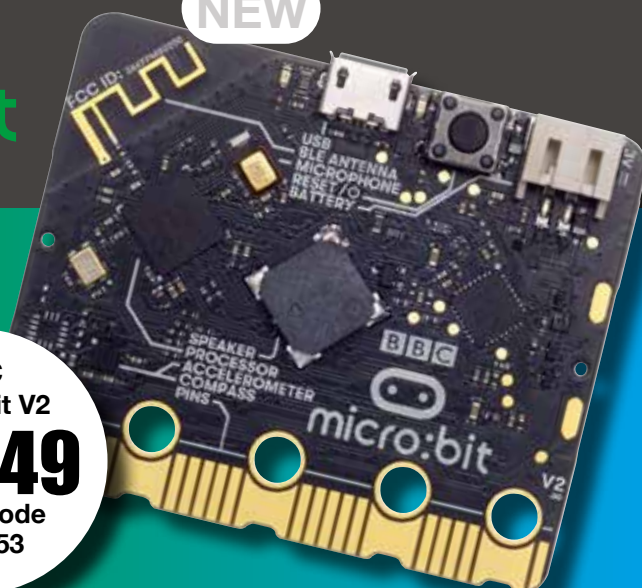


BBC micro:bit

Get creative with the new micro:bit now with built-in speaker and microphone!



NEW



Meet the BBC micro:bit V2

Same great features, easier ways to use sound and touch to get creative in the classroom and add to your projects.

- Sense and react to sound with the built-in microphone
- Play sound with the built-in speaker
- Power saving mode
- Capacitive touch sensor
- More computing power
- Updated technical platform
- Also, look out for our new micro:bit kits!

BBC
micro:bit V2
£10.49
Order code
75-0153

NEW

micro:bit V2 Starter Kit



£14.91
Order code
78-7230

Bundle includes:
1x micro:bit board
1x 1m USB download cable
1x switched battery box
2x AAA batteries

NEW

micro:bit V2 Starter Bundle



£43.51
Order code
78-7231

Bundle includes:
1x Bit:Bot robot kit
1x BBC micro:bit V2
3x AA batteries

micro:bit Starter Bundle



£38.80
Order code
75-0101

Bundle includes:
1x Bit:Bot robot kit
1x BBC micro:bit
3x AA batteries

Robo:Bit MK3 Buggy



£29.40
Order code
75-5014

Includes
• Buggy
• Line following sensor
• Ultrasonic distance sensor
• Integrated pen holder
• LED light bar.

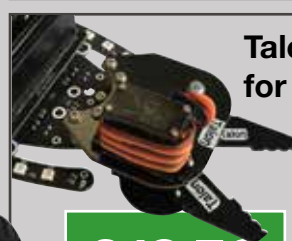
Bit:Bot XL Robot with Addressable LEDs



£36.65
Order code
75-5019

Please note
Micro:Bit, batteries, pen and ultrasonic sensor are not included.

Talon Grabber for Bit:Bot



£10.50
Order code
75-5007

No soldering required, just a few screws to attach.

Please note
Not compatible with Bit:Bot XL.

Bit:Commander Game Pad



Please note
micro:bit not included.

£17.33
Order code
75-0898

McRoboFace v1.0 White



Ideal for use with the Robo:Bit buggy

£6.83
Order code
75-0147

HC-SR04 Ultrasonic Distance Sensor V2



When used with the Robo:Bit buggy the Ultrasonic Distance Sensor lets the robot detect objects before it collides with them allowing you to program it to avoid them.

£3.68
Order code
75-0146

Switched Battery Box 2 x AAA



Rapid

£1.01
Order code
18-2899

NEW

Full range of micro:bit accessories visit www.rapidonline.com/microbit

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REACTION GAME

micro:bit PROJECT

Make a reaction game with real physical switches you can bash as hard as you like!



TASK 1 – MAKE IT

How it works

- Make two physical input switches using cardboard and tin foil – similar to the ones used in the Pressure switch alarm project.
- Connect them to the micro:bit pins as in the picture – one tin foil pad on each switch goes to the micro:bit's GND pin, and the other is connected to pin 1 or pin 2 depending on whether you are player A or player B.
- The program waits a random time between 1 and 5 seconds, then shows a heart on the LED display output.
- You can't hit your button before it lights because it uses Boolean logic to stop anyone cheating! Boolean variables can only have two values: True or False. The game started variable prevents either player pressing their button too soon by only checking which button is pressed while the game has started.
- An infinite loop keeps the game running so you can keep playing.

What you need

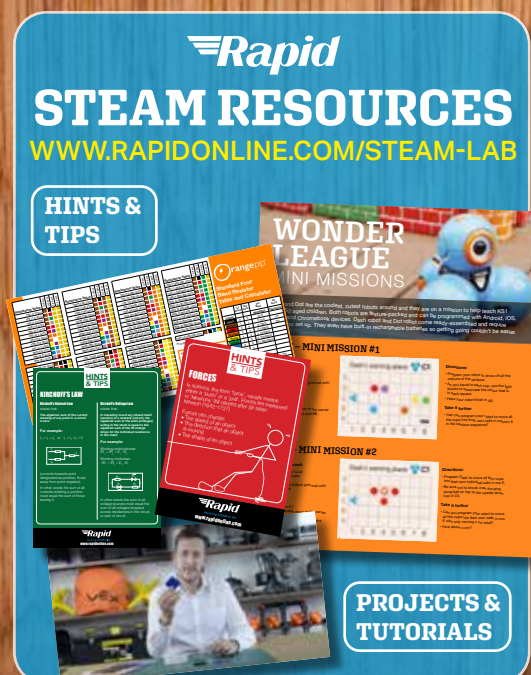
- 1 micro:bit
- 4 crocodile clip leads
- Some scrap cardboard, tin foil, glue and scissors



TASK 3 – IMPROVE IT

- Use variables to keep track of each player's score
- Add a timer to show how quick each winner's reaction was
- Track which player has the fastest reaction time

TASK 2 – CODE IT



Everyone knows what the Raspberry Pi is –

a small single board computer that enables people of all ages to learn more about programming.

Though only the size of a credit card, the value of the investment the Raspberry Pi can make into computing education is huge. At a fraction of the cost of a tablet, the Raspberry Pi gives children of all ages the ability to explore computing, learn how to code in Scratch and Python and experience what programming can achieve.

According to the Raspberry Pi Foundation, 92% of educators and volunteers say young people involved in its programmes have improved their programming skills. 45% of schools in England have used Raspberry Pi Foundation resources and training as part of the National Centre for Computing Education.

We can support any teacher considering introducing Raspberry Pi into their classroom or coding club. Certified training programmes and hundreds of hours of lesson plans are available from Teach Computing and Picademy, while free software and project resources for guided coding and open ended computing are also available.

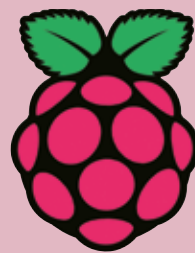
Rapid has recently become an approved reseller of Raspberry Pi, meaning that we will be able to offer the complete range of products, together with supporting teachers and students in their Raspberry Pi experience.

www.rapidonline.com/Raspberry-Pi

NEW

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See page 2 for more details



RaspberryPi

Useful Links



Raspberry Pi OS
www.raspberrypi.org/software/



Guided coding projects
projects.raspberrypi.org/en



Teach Computing
teachcomputing.org/

Official Raspberry Pi for Schools


Raspberry Pi

APPROVED RESELLER

Pi 400



Raspberry Pi 400 Kit

Contains:

- Mouse
- Power supply
- Micro HDMI to HDMI cable
- SD card preloaded
- Beginner's Guide book

NEW
£76.81

Order code 75-1133

RPI400-UK Raspberry Pi 400 Unit only

NEW


The powerful and easy-to-use computer incorporates a purpose-built board based on the Raspberry Pi 4, and features a quad-core 64-bit processor, 4GB of RAM, wireless networking, dual-display output, and 4K video playback, as well as a 40-pin GPIO header.

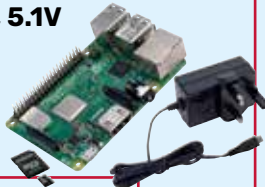
£53.77

Order code 75-1134

Pi Kits

Raspberry Pi 3 BareBones Kit - Pi 3 B+, 5.1V 2.5A PSU & 8GB SD

✦ Ideal starter kit for Raspberry Pi ✦


£39.64

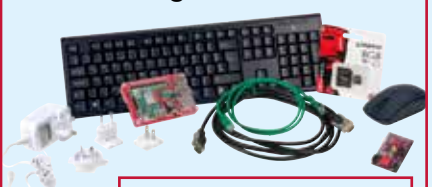
Order code 75-0816

Basic Raspberry Pi Kit Including Model 3 B+


£63.03

Order code 75-0813

Intermediate Raspberry Pi Kit Including Model 3 B+


£70.82

Order code 75-0814

Pi 4



Raspberry Pi 4 Model B Starter Kits

4 GB
£86.16

Order code 75-1012

2 GB
£68.59

Order code 75-1009



Raspberry Pi 4 Model B

4 GB
£44.36

Order code 75-1008

2 GB
£32.57

Order code 75-1007



Raspberry Pi 4 Model B Official Case

£3.85

Order code 75-1129

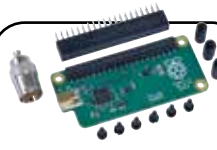
Accessories & HATS



Raspberry Pi Official 7" Touch Screen LCD

£49.41

Order code 75-0756



Raspberry Pi RPI-TV-UHAT TV HAT for Raspberry Pi

£17.77

Order code 75-0193



Raspberry Pi T6715DV Power Supply UK Fixed Head Black

£7.59

Order code 75-0202



Raspberry Pi Keyboard (UK)

£13.64

Order code 75-0196



Raspberry Pi 4 Model B Official PSU, USB-C, 5.1V, 3A, UK Plug

£6.46

Order code 75-1125



Raspberry Pi Mouse

£6.46

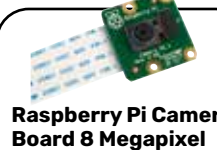
Order code 75-0197



Official Raspberry Pi White HDMI Lead 2m

£4.06

Order code 75-0762



Raspberry Pi Camera Board 8 Megapixel Version 2 1080p

£20.17

Order code 75-0530



Raspberry Pi SC0915 Raspberry Pi Pico RP2040 Microcontroller Board

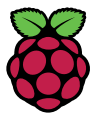
NEW

£2.88

Order code 75-1132

The Raspberry Pi Pico is a single board computer that features the dual-core Arm Cortex-M0+ processor, that has 264KB internal RAM and support for up to 16MB of off-chip Flash.

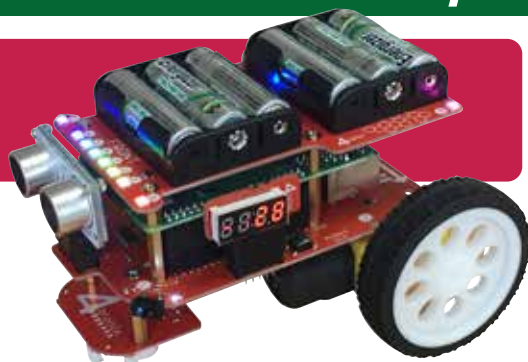
Full range of Raspberry Pi Products available at www.rapidonline.com/raspberry-pi



Raspberry Pi

APPROVED RESELLER

For full details on these and many more Raspberry Pi accessories visit www.rapidonline.com/raspberry-pi



PIMORONI PIMORONI



Fan SHIM for Raspberry Pi

Make your Raspberry Pi seriously cool with the Fan SHIM!

Order code
75-0918

£9.58



Pibow Coupé 4 Ninja Case for Raspberry Pi 4

This attractive Ninja Case is crafted out of five unique layers, including a transparent top and base that leave your beautiful Raspberry Pi 4 visible inside.

Order code
75-0917

£7.77

4tronix

Pi2Go Mk2 Robot for Raspberry Pi

The Pi2Go Mk2 is the evolution of the very popular original Pi2Go robot for Raspberry Pi, first sold in April 2015. This latest version works with the Raspberry Pi 4 and all versions of the 40-pin Raspberry Pi. The robot kit includes motors, sensors, ultrasonic sensor breakout module, IP display board and 6x AA battery board.

Order code
75-5016

£61.03

Rapid

Adventures in Raspberry Pi Component Companion Kit

This kit contains a host of components suitable for prototyping work. Includes a solderless breadboard, headers, pots, switches, LEDs, buttons, resistors and cables.

Order code
75-0037

£15.73

seeed studio

GrovePi+ Starter Kit for Raspberry Pi B+, 2, & 3

The GrovePi+ Starter Kit for Raspberry Pi from Seeed Studio gets you off to a flying start on your next project. It includes 12 of their most popular Grove modules, but what is Grove? Seeed describe it as "a modular electronic platform for quick prototyping", where each module has a specific function. You take a building block approach, adding just the functionality you need, without overloading your Pi with useless bits and bobs. This kit consists of a main board which plugs into the Pi and has Grove connectors, a set of sensors, a set of output modules, and a manual. Within minutes of unpacking you could be using the light sensor to control other gadgets using the relay or the range finder to send information to the LCD display. Simply add a Raspberry Pi.



Order code 75-0384

£49.90

seeed studio

Grove Beginner Kit for Arduino with 10 Sensors and 12 Projects

The Grove Beginner Kit for Arduino is one of the best kits for beginners to be able to build any Arduino project.

The kit is powered by one Arduino UNO compatible Board (ATmega320p based Seeeduino Lotus), has an all-in-one PCB design and comes with ten additional Grove Arduino sensors. All the modules have been connected to the Seeeduino through the PCB stamp holes so no Grove cables are needed to connect. The modules can also be taken out for use with Grove cables to connect the modules.



Order code
75-0442

£20.01



Ohbot 2.1 Educational Robot with Graphical Block Software

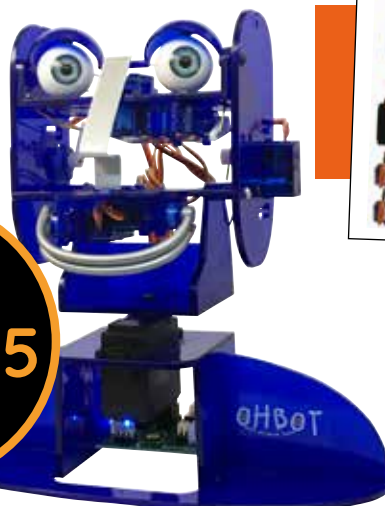
Ohbot is an educational robot for blocks/Python programming and provides an introduction to Artificial intelligence (AI), both at school or at home. It emulates human face movements and can be programmed to talk and interact in many languages.

Use with your Raspberry Pi

Simply connect Ohbot to your computer, install the Ohbot blocks graphical software and start programming amazing projects! Includes 4 software licenses.

Assembled
OHBOT
£142.95

Order code
76-0000



Unassembled
OHBOT
£116.50

Order code
76-0001


**EDUCATION
PARTNER**

 For full details visit www.rapidonline.com/arduino-education

LEARNING SOLUTIONS

from Arduino Education

Arduino Education is a platform that is relevant for children and young adults throughout their educational life; from early programming principles to a tool for learning about key science, maths and engineering concepts. As part of its wide-reaching education program, Arduino Education has developed comprehensive kits for primary, secondary and university level, with Arduino technology at the heart of them all. They are projects designed for group learning, founded on the Arduino Education open-source approach to software and support, and deliver innovative, engaging experiences for both student and teacher.


 Order code
73-0207
£49.95

Education Student Kit

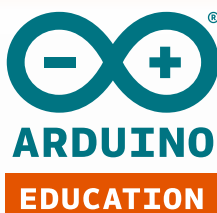
Learn the basics of programming, coding and electronics, including current, voltage and digital logic. No prior knowledge or experience is necessary as the kit guides you through step by step.

- Access code to exclusive online content including learning guidance notes, step-by-step lessons and extra materials such as resources, invention spotlights and a digital logbook with solutions


 Order code
73-0166
£218.31

Education Starter Kit

Teach 11 to 14 year old (middle school) students the basics of programming, coding, and electronics. No prior knowledge or experience is necessary as the kit guides you through step-by-step, you are well-supported with teacher guides, and lessons can be paced according to your students' abilities.


 Order code
73-0163
£684.71

Education CTC GO! Motions Expansion Pack

The CTC GO! - Motions Expansion Pack is aligned to the National Curriculum of England, used in international schools across the world, for computing and design and technology for students aged 14 to 17. Curriculum links are provided within the educators' software platform. Additionally, these lessons teach students important 21st-century skills such as collaboration, project management, problem-solving and critical thinking.


 Order code
73-4865
£115.50

Science Kit Physics Lab

The first official Arduino® kit designed for scientific exploration for middle school teachers and students, developed in collaboration with Google™.

NEW

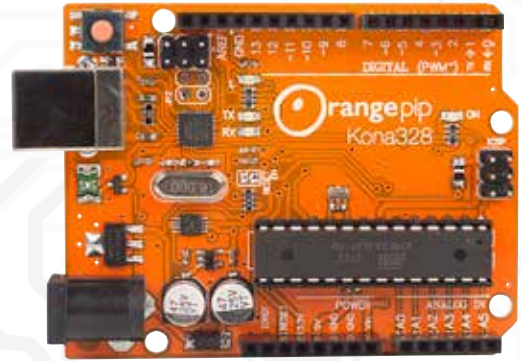


Uno Board R3

| | |
|--------------------------|---|
| Microcontroller | ATmega328 |
| Operating voltage | 5V |
| Input voltage range nom. | 7-12V |
| Maximum supply voltage | 20V |
| Digital I/O pins | 14 (of which 6 provide PWM output) |
| Analog input pins | 6 |
| DC Current per I/O pin | 40 mA |
| DC Current for 3.3V pin | 50 mA |
| Flash memory | 32 KB of which 0.5 KB is used by bootloader |
| SRAM | 2 KB |
| EEPROM | 1 KB |
| Clock speed | 16 MHz |
| USB Connector | Type B Male |

£15.91

Order code 73-4440



Kona328

| |
|---|
| ATmega328 |
| 5V |
| 7-12V |
| 20V |
| 14 (of which 6 provide PWM output) |
| 6 |
| 40 mA |
| 50 mA |
| 32 KB of which 0.5 KB is used by bootloader |
| 2 KB |
| 1 KB |
| 16 MHz |
| Type B Male |

Same



£12.55

Order code 75-0550



Mega2560 Board R3

| | |
|-------------------|---|
| Microcontroller | ATmega2560 |
| Digital I/O pins | 54 (of which 14 provide PWM output) |
| Analog input pins | 16 |
| UARTs | 4 |
| Flash memory | 256KB of which 8 KB is used by bootloader |
| SRAM | 8 KB |
| EEPROM | 4 KB |
| Clock speed | 16 MHz |
| USB Connector | Type B Male |

£27.97

Order code 73-4450



Mega2560

| |
|---|
| ATmega2560 |
| 54 (of which 14 provide PWM output) |
| 16 |
| 4 |
| 256KB of which 8 KB is used by bootloader |
| 8 KB |
| 4 KB |
| 16 MHz |
| Type B Male |

Same



£22.70

Order code 75-0551



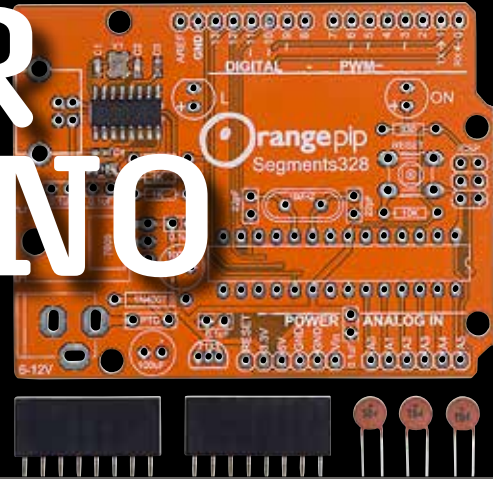
NEW

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See page 2 for more details

BUILD YOUR OWN ARDUINO

Segments328 board



You may well be familiar with an Arduino board and aware of all the clever things it can help you to do. But how many people understand how the Arduino works? Do you know what components make up the “magic” box?

This Segments 328 kit from Orangepip will let you into the secret - and will encourage you to develop your soldering skills in the process.

TASK – CONSTRUCTION OF BOARD

What you have got:

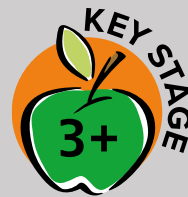
- PCB board pre-drilled
- 16MHz crystal
- ATmega328 microcontroller
- Dual in line socket
- Tactile switch
- Red and green LED
- 6 pin dual row header
- 2x 8 & 6 pin row sockets
- USB Socket
- Power supply jack socket
- 1x 10K, 2x 330R and 2x 1K resistors
- 2x 47uF electrolytic capacitors
- 1N4007 diode
- 7805 and 7133 voltage regulators
- PTC resettable fuse
- 0.1uF and 22pF ceramic capacitors

What you will need:

- Soldering iron, solder wire & helping hands assembly aid
- Side cutters
- Snipe nose pliers
- Multimeter

What you have to do:

- Insert each of the components into the board in the order and location as indicated on the Build Instructions manual
- Solder each component into place
- Follow our guide to installing the software and uploading your first program to the Orangepip Segments board that you have just made



Build & Programming PDF instruction notes available online!



Orangepip Segments 328 Build Your Own Arduino Class Pack of 15

£126.00

Order code 75-1201



Only £12.55
Order code 75-1200

Orangepip Segments 328 Build your Own Arduino Kit

Orangepip 50cm USB Cable A Male to B Male

Only £1.81
Order code 75-0552



orange pip®
Segments328



DFROBOT
DRIVE THE FUTURE

Gravity: IoT starter Kit for micro:bit



Order code
75-0109
£63.51

Gravity: Arduino Zero to Hero Kit



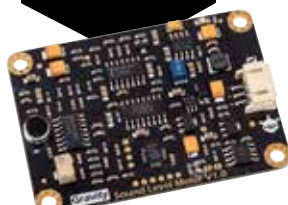
Order code
75-0126
£61.93

Order code
75-0247
£7.30



Gravity: IO Expansion Shield for Arduino V7.1

Order code
75-0268
£33.98



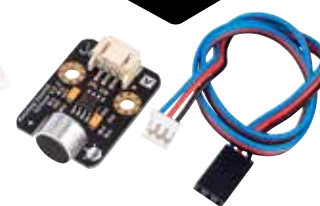
Gravity: Analog Sound Level Meter

Order code
75-0246
£6.58



Gravity: Analog Capacitive Soil Moisture Sensor

Order code
75-0248
£4.40



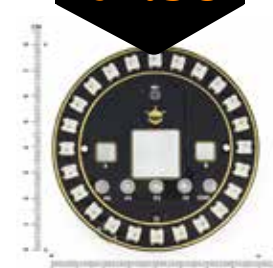
Gravity: Analog Sound Sensor For Arduino

Order code
75-0249
£24.36



Gravity: Analog pH Sensor/Meter Kit For Arduino

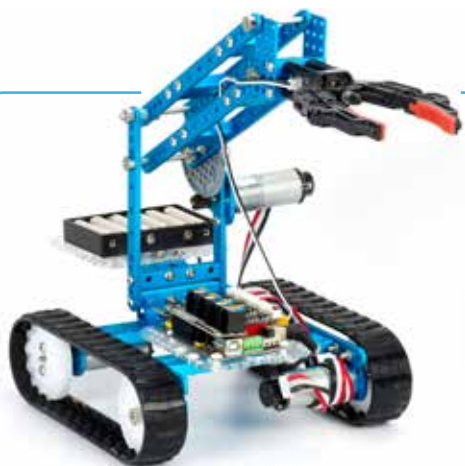
Order code
75-0103
£9.53



micro:bit Circular RGB LED Expansion Board

For full details and to see more DFRobot products visit www.rapidonline.com/DFRobot

makeblock



Ultimate Robot Kit V2.0 – 10 Types in 1

The Ultimate 10 in 1 robot kit from Makeblock is the flagship of the Makeblock range with more parts, more possibilities and more fun. At the heart of the kit is the MegaPi robotics controller which is based on the popular Arduino Mega 2560 but with additional motor driver interfaces.

£242.50
Order code 75-0695



mBot Ranger: Transformable STEM Education Robot Kit

The mBot Ranger 3 in 1 from Makeblock is an intermediate robotics kit for STEM or personal use. It is based around the Me Auriga programmable module with Arduino Mega 2560 compatibility which brings with it excellent online educational and tutorial resources.

£141.94
Order code 75-0699



mBot V1.1 Blue 2.4GHz RF Enabled STEM Robot Kit

The mBot with 2.4GHz from Makeblock is the perfect introduction to robotics for STEM or personal use. It is based around the mCore programmable module with Arduino UNO compatibility which brings with it excellent online educational and tutorial resources.

£60.33
Order code 75-0701

NEW

For full details and to see more makeblock products visit www.rapidonline.com

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See page 2 for more details

www.rapidonline.com/contact - sales@rapidonline.com

Craft a city out of cardboard, or draw a city to make an interactive poster. The idea behind this project is to craft or create buildings for an imagined city and then tell the story of the people who live in your crafted buildings. For more ideas visit www.rapidonline.com/steam-lab.

THE WORLD IS YOUR CONSTRUCTION KIT!

Makey Makey Inventors Kit

- Arduino compatible
- Simple USB connection
- Challenge and expand your imagination
- Invent ways to experiment and play
- Almost anything can be used as a keyboard

£44.65

Order code 73-5500

Makey Makey GO

Includes Case with Magnet, Croc Lead, Keyring & Instruction Guide

- Contents: USB Invention Stick, case with magnet, 1 white crocodile lead, key ring, and instruction guide
- Simple USB connection
- Have fun and expand your imagination

£19.18

Order code 73-5502

TASK - ADD CONDUCTIVE TOUCHPOINTS TO YOUR CITY

Use thumbtacks, paper clips, or pencil drawings to make your city interactive with Makey Makey and Scratch. By adding different conductive touchpoints you are building the hardware that will go with the software you create in Scratch!

Everyday conductive materials:

- Kitchen foil
- Paperclips
- Pencils
- Staples
- Pins
- Coat hangers

Plus many more!



Shape Robotics

NEW PRODUCTS



Fable Connect

The best way to get your housebound children to experience school

There can be many good reasons for a child to be housebound, even though they want to be at school. Be it longtime illness, pandemics, anxiety, or simply a broken bone, these are all situations where the child might prefer to be at school. Fable Connect is the missing link in that situation. It helps children attend school from home.

The Fable Connect robot provides a real presence in the classroom, as it allows children to see, hear, look around, and speak. The long-lasting battery makes sure they're not going to miss a thing.



Fable Makerspace+



Fable Hello! Class



Fable Hello! Class+



Fable Play! Class



Fable Play! Class+

CLASSPACKS

For full details visit www.rapidonline.com/shape-robotics

Classpacks & discounted pricing for schools
AVAILABLE ACROSS ALL ROBOTICS RANGES

makeblock

Codey Rocky Programmable Robot

The MakeBlock Codey Rocky is a coding robot for STEAM education. Codey provides an entertaining learning experience and introduction to programming for ages 6+. With the combination of easy-to-use robotics hardware together with mBlock 5 block-based programming, you'll be up and coding within minutes.

£66.94

Order code
75-0516



wonder
workshop

Dash, Dot and Cue are the coolest, cutest, smartest robots around and they are on a mission to teach coding to kids. They are fun and interactive and allow learning at a child's own pace. Dash, Dot and Cue can be programmed with free apps that children will find easy to use on their smartphone or tablet.



DASH

AGE 5-11

Only

£139.95

Order code 70-1100



DOT

AGE 5-11

Only

£45.95

Order code 70-1101



cue

AGE 11-14

Only

£149.09

Order code 70-1108

ozobot

Ozobot from Only £30.75

Expand your child's horizons with the help of **Ozobot 2.0 Bit Robot**, the tiny smart robot. There's no end to the possibilities, as your child creates a different landscape of adventures, games and coding with Ozobot Bit. Imagine a learning toy that opens the doors of computer science, STEM Education, robotics and coding, putting your child one step ahead of the learning curve in school and in life.

The **Ozobot Evo** is an award-winning coding robot for the next generation of creators. It can be coded in two ways: online with OzoBlockly programming, and screen-free with Colour Code markers.

A money-saving class pack is also available containing 18 white Evo robots.



Crystal
White

£30.74

Order code
70-8200



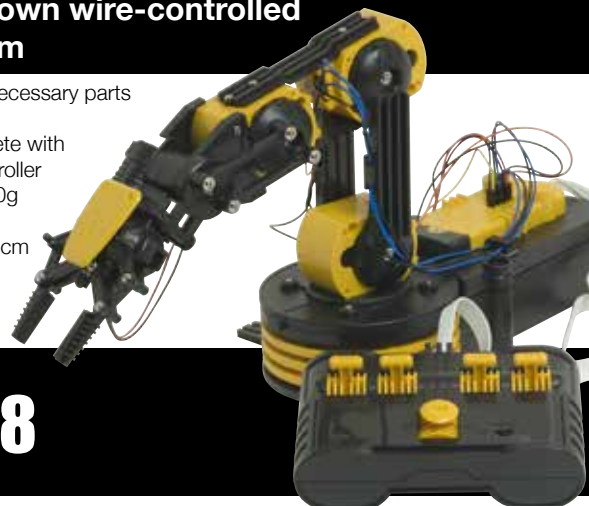
White
Starter Kit

£93.44

Order code
70-8203

Build your own wire-controlled Robotic Arm

- Kit includes all necessary parts (except tools)
- Supplied complete with wired hand controller
- Maximum lift 100g
- Dimensions 37.5 x 16.1 x 23cm
- Requires 4x D batteries (not supplied)



Only

£25.98

Order code 06-9349

NEW

Sign in to SAVE!

See page 2 for more details

www.rapidonline.com/contact - sales@rapidonline.com



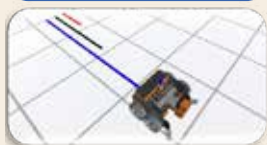
VEX Robotics - Providing the tools to inspire the problem solvers of tomorrow

VEX CODE VR

A free virtual robot coding tool that runs in your browser. VEXcode VR is packed with activities which can be used by students who are learning remotely as well as those that are classroom-based. These are just a few examples of how the activities built into VEXcode VR can be used to teach Computer Science concepts.

Try VEXcode VR and see the full range of activities at vr.vex.com

SEQUENCING



Basketball Drills

Create a sequence of instructions to make your VEXcode VR robot move forwards various distances and then return to the starting point.

SELECTION



Disk Maze

Navigating through the Disk Maze requires you to make decisions on which way to turn each time the robot comes to a Disk.

- Identify the pattern
- Use sensors
- Use if/else selection

ITERATION



Disk Mover

Collect disks using the Electromagnet and move them into the goal of the corresponding colour.

- Use sensors to detect Disks
- Use the Electromagnet to collect/release disks
- Use loops to reuse the code to collect all Disks

VARIABLES



Grid Map Spiral

Using the VR robot's pen, draw a spiral that hits every square on the grid.

- Use the robot's pen
- Use the variable to make the robot move in shorter distances for each iteration
- Use loops repeat drive commands

FUNCTIONS



Sweep the Castle

Knock all the castle pieces over the edge of the Playground in the fastest time.

- Try using functions to make your code easier to read
- Create a function to find the next object and a function to crash the castle pieces once detected

VEX GO

Key Stage 2



VEX GO is an affordable STEM construction system that taps into children's natural inquisitiveness.

VEX GO utilises the VEX IQ plastic construction system and adapts it for primary students.

VEX GO Kit with Storage Boxes

Order code 70-6277

£179.99

VEX IQ

Key Stage 2-4



VEX IQ is a snap-together robotics system designed from the ground up to provide novice users the chance to find success quickly, while still being able to constantly challenge more advanced users.



VEX IQ Super Kit

Order code 70-7891

£324.99

VEX V5

Key Stage 3-5



The VEX V5 system includes versatile elements that take the frustration out of engineering for novice users, while still providing experienced users with endless design possibilities.



VEX V5 Competition Starter Kit

Order code 70-8196

£849.99

How to Solder Kit

Order code 85-1355

£46.74

XS25W S
Cable and

£46.74

ANTEX

£47.36

£22.04

£22.65

A black zippered tool kit is shown open, revealing its contents. On the left side, there is a pair of blue-handled pliers and a pair of red-handled wire cutters, both secured with black straps. On the right side, there are three screwdrivers with different colored handles (red, green, and black) and a pair of red-handled pliers, also secured with black straps. The kit is made of a durable black material and has a silver-colored zipper pull at the bottom.

£13.05

Nose Pliers



£1.77

Screwdriver



A collection of screwdrivers with various handles and bits. The handles are made of different materials, including wood, metal, and plastic. The bits are made of metal and come in various shapes and sizes, including flathead, Phillips, and Torx.

£2.13

£3.54

£4.53

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Accessories**

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£5.56

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