Microbit

By: Naomi, Annika & Alex

Background

There are many inventors of the microbot, one of the main inventors was BBC. It was invented in the United Kingdom. In 2014 to help teach kids how to program and to explore CS in their best interest.

Benefits of a micro bit

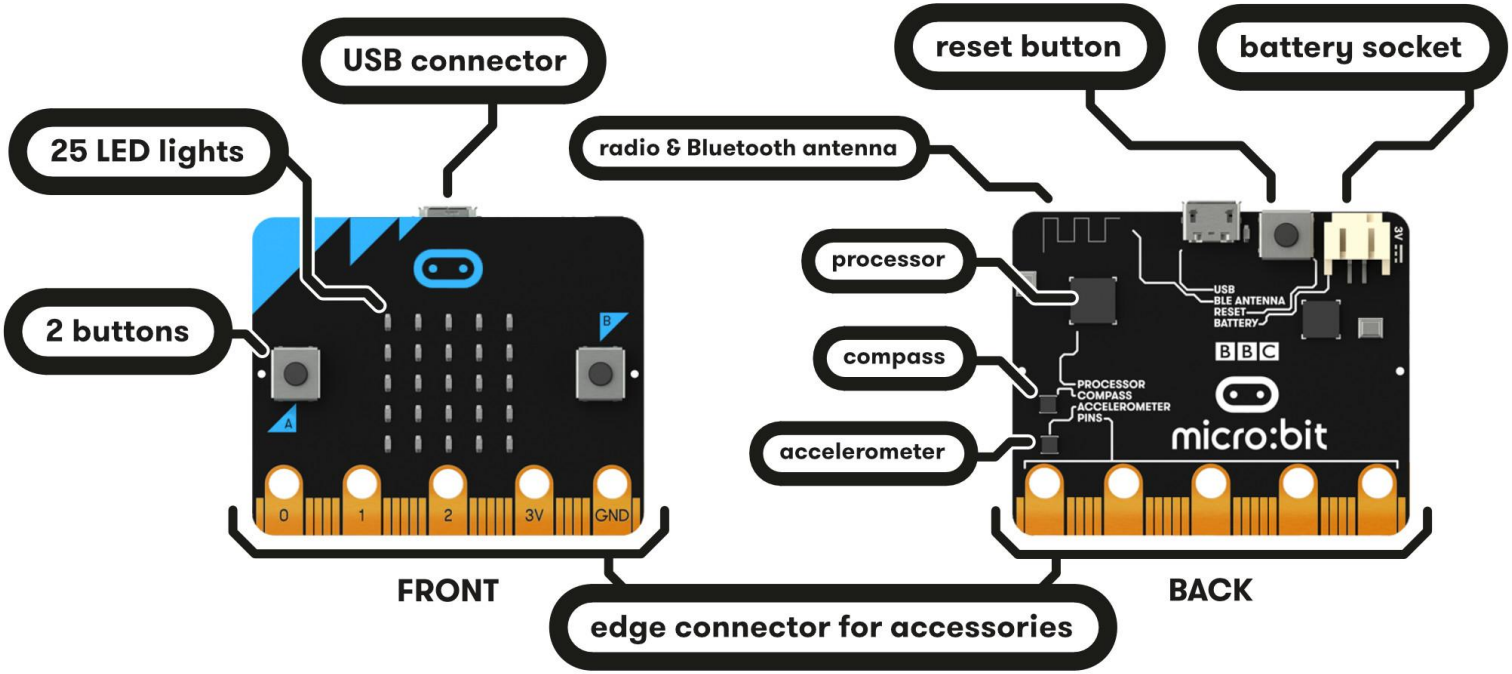
01 Micro Bits are perfect for beginner programers

02 Microbits help and train kids on how to program using code and many other styles

03 The micro:bit can be programmed to do a number of different things, it can be a digital watch, fitness tracker or a games console

04 Can build cs skills with no need for costly investment

The Parts of a Micro:bit



How to set up your Micro:bit

A

First, take the micro:bit and connect it to your computer using a micro USB cable.

B

If you use https://makecode.microbit.org/ (make code) to create your programs, you can connect your device and micro:bit to show what you coded.

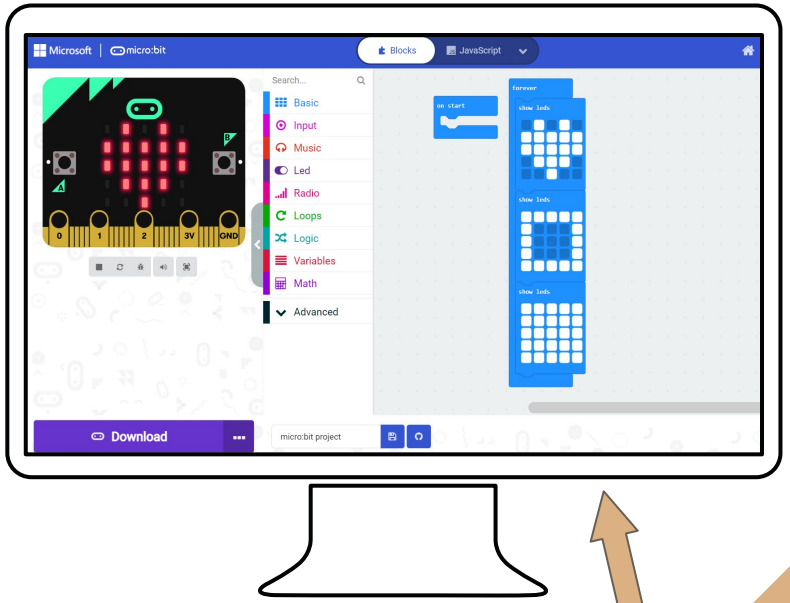
C

Now, you can program whatever you want onto the micro:bit!

A simple program for your Micro:bit

There are plenty of amazing projects and ideas on what to program on your Micro:bit- take a look at these cool ideas!

(All these images are from google)

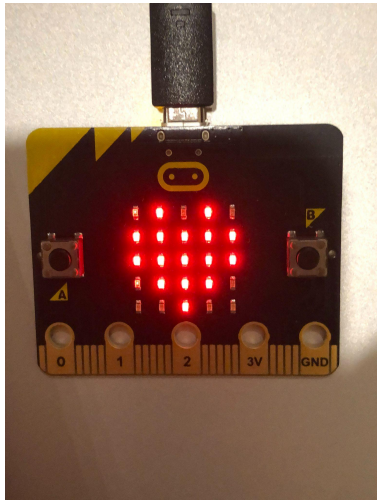


Here's an easy program I made that you can make too for your Micro:bit!

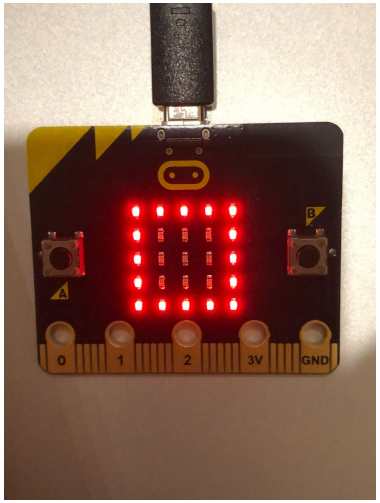
The Finished Product

It should look like this, I didn't add a video but each shape should flash in the pattern of heart, square 1, then square 2.

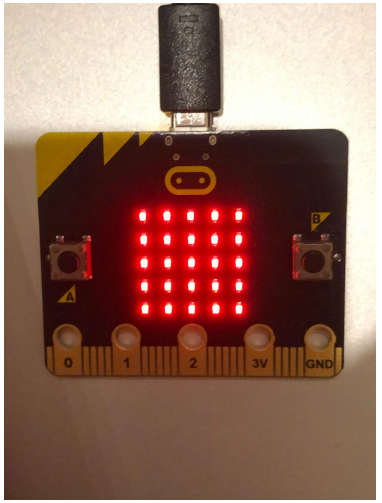
(You could also create your own shapes or images on the Micro:bit)



Heart



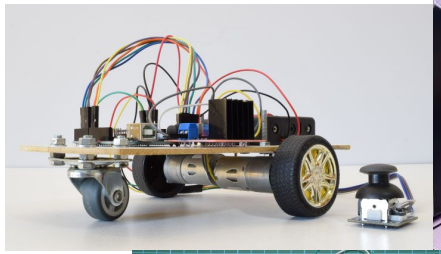
Square 1

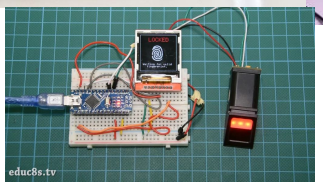


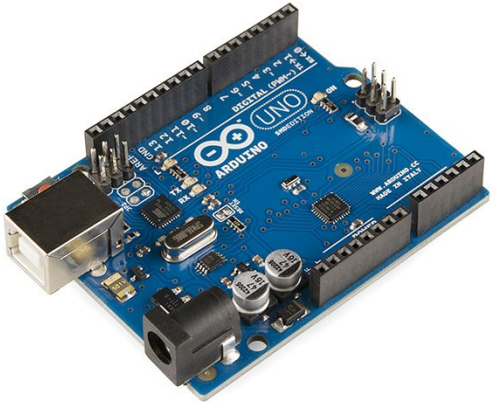
Square 2

More Micro:bits

Micro:bits are mostly used to teach beginners, so if you're really interested in Micro:bits and are looking for something more advanced, here are some suggestions for you.

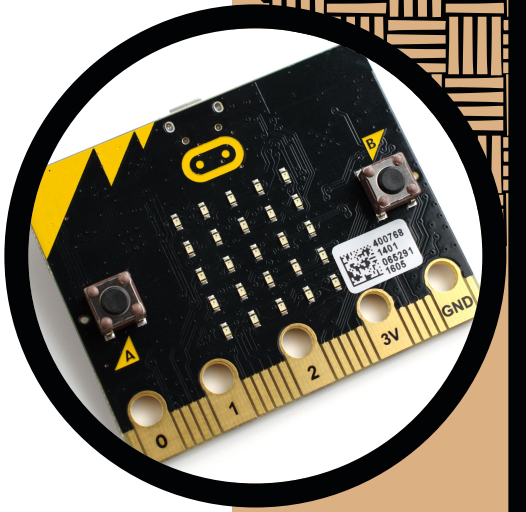






An arduino is open-source platform and by sending instructions to the microcontroller you can do whatever you want! An arduino is a bit more flexible and advanced than a Micro:bit, but beginners can use it too.

Let’s go more in-depth on coding with Micro Bits!



Lets try and make “banana” appear across the screen when you press a button!

First click new project, then get the “when button a pressed” block. Then get the string block and put banana inside of it. Look at your visual micro bit, does it work? If so connect your actual microbit to your laptop, then download the code. Press button a!

Are you still having trouble with your microbit?

Sometimes the micro bit won't display what you have put in because of these reasons: it's not connected or you didn't download your code. if it's still not working try replugging it, you can also reconnect your micro bit to the website (make sure you don't block pop-ups!)

If it still doesn't work try using a different cable or check your code!

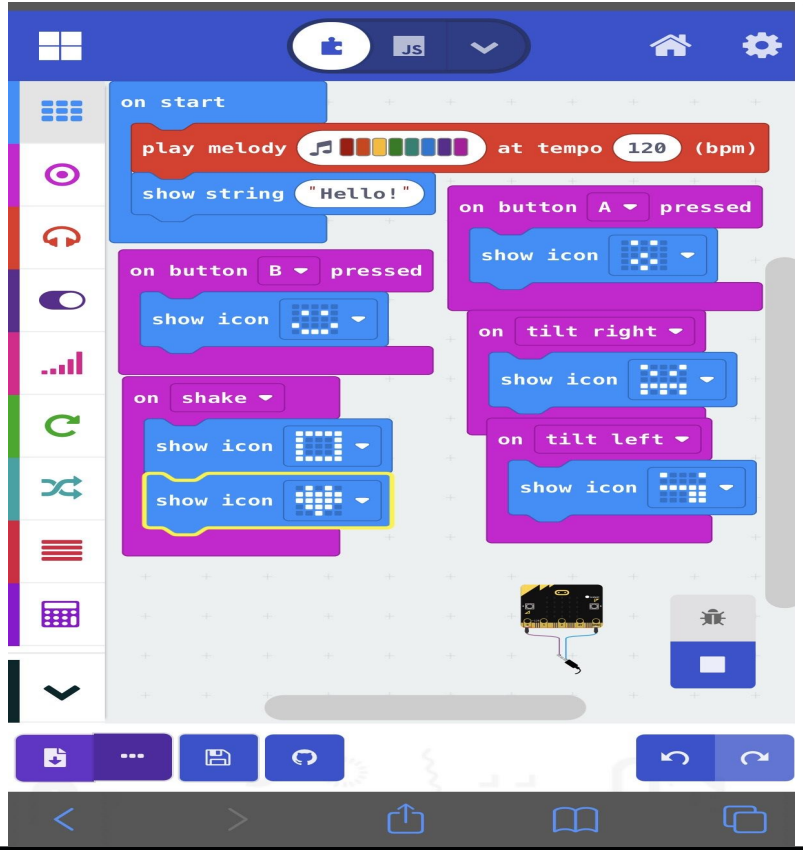
Let's make a game!

Last week I made a shapes game on microbits with microsoft, and today I am going to show you how to create it!

1. Start a new project!
2. Get the start block
3. You can add music if you want but after that put an icon block in the start block.
4. Then get a block that says "when tilted" and put an icon in that block.
5. Now you can repeat this process with different movement blocks and icons, remember this is just a reference you can create anything you want!

This is what your code should look like!

If the code you made doesn't work, look at mine! You can either copy it or use this as a reference and create your own!



Conclusion

Thank you for listening to our presentation! If you are interested in Micro:bits, feel free to explore on your own because there are lots of websites and programs to learn more about, like python!

On the next slides there's an interactive quiz for everyone to do!

Tell us what you thought about our presentation!
https://forms.gle/juGiZkvVfn6uNSKy8

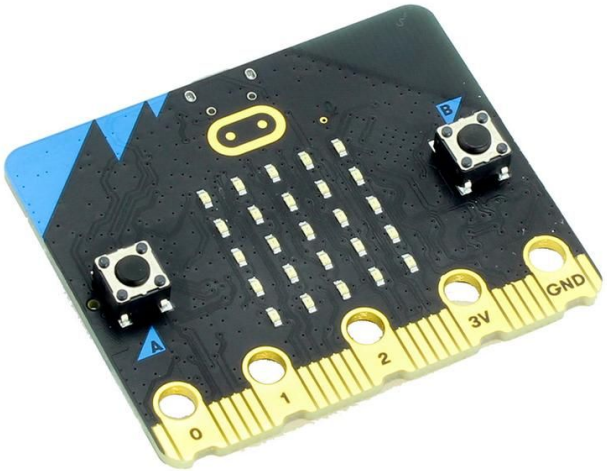
What do you use to connect your Micro:bit to your computer?

Micro USB cable

Here's a hint!

How many LEDS does a Micro:bit have?

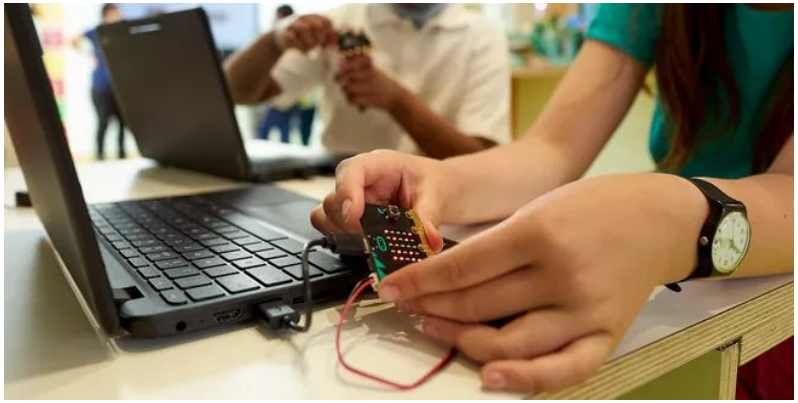
25



Hint: You can count it!

Why was the Micro:bit created?

To help students
learn and explore CS



Is this a Micro:bit or an arduino?

It’s an arduino!

Citations

- Images - from google.
- Youtube video on google form - BBC youtube.
- https://www.natgeokids.com/uk/discover/science/general-science/bbc-micro-bit/
- https://resourced.prometheanworld.com/use-microbits-teaching-learning/
- https://makecode.microbit.org/
- https://www.arduino.cc/en/guide/introduction
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