

YFROBOT

Micro:Bit基础课程

Micro:Bit V2专属

第一课

蜂鸣器播放音效

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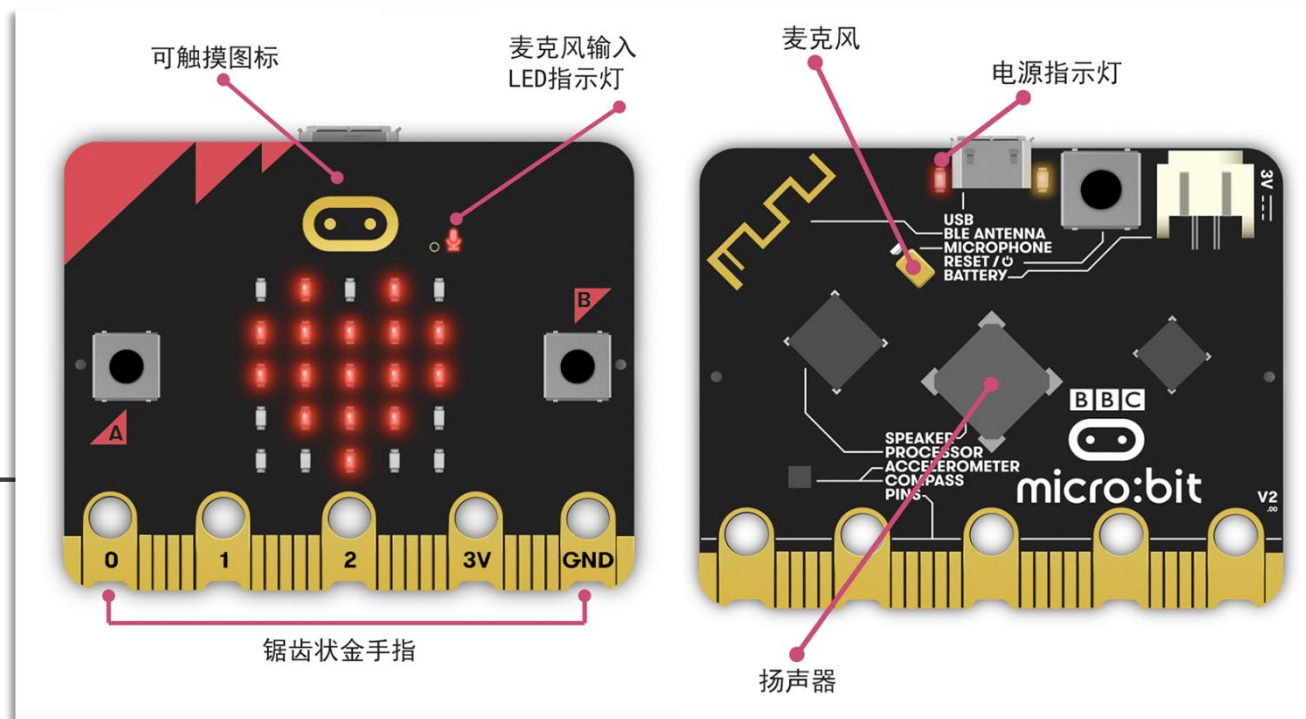
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V2主板新特征



*板载扬声器

*带LED指示灯的麦克风

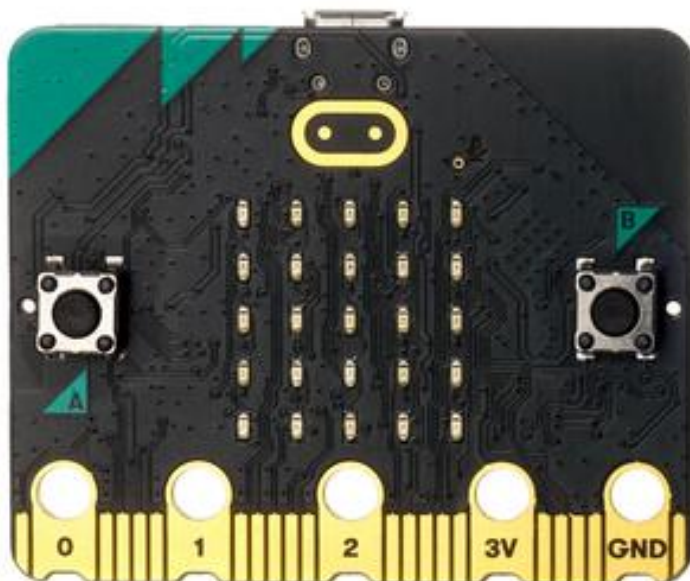
*触控式徽标

*内置睡眠/关闭模式，这意味着板可以在连接电池的情况下断电

*可向外部附件提供高达 190mA 电流的分立式稳压器

Part 1

学习目标



本次课我们要学习micro:bit V2板载蜂鸣器；使用编程器MakeCode内置2.0程序块，实现蜂鸣器播放音效。

Part 2



课前准备

器材准备：

- Micro:bit主板 V2*1
- USB数据线*1
- 一台可以上网的电脑

然后将Micro:Bit通过USB连接电脑，电脑会弹出一个名为“MICROBIT”U盘，

MakeCode编辑器登陆网址：

<https://MakeCode.Micro:Bit.org>，即可进入了编程页面。



Part 3

编程实验

基本中
显示图标、当
开机时程序块

The screenshot shows the Microsoft MakeCode for micro:bit editor interface. The workspace contains a 'When Powered On' block with a 'Show Icon' block and a 'Play Sound' block. The 'Show Icon' block is highlighted with a yellow box. The 'Play Sound' block is set to 'Yawn' and 'Until Finished'. The workspace also contains other blocks like 'Show String', 'Clear Screen', 'Infinite Loop', 'Pause (ms)', and 'Show Arrow'.

Part 3

编程实验

音乐栏
播放声音程序
块
(micro:bitV2
专属)

The screenshot shows the Microsoft MakeCode for micro:bit editor interface. On the left, the 'Music' block palette is highlighted in red. The workspace on the right contains a script with the following blocks:

- 1 节拍 (1 Beat)
- 节奏 (bpm) (Tempo)
- 旋律高级版 (Advanced Melody)
- 播放旋律 dadadum 重复 播放一次 (Play Melody dadadum Repeat Play Once)
- 停止旋律 全部 (Stop Melody All)
- 播放 播放旋律音符 时响起音乐 (Play Play Melody Note When Music Starts)
- 打哈欠 直到结束 (Yawn Until End)

Below the workspace, the 'micro:bit (V2)' block palette is visible, with the '播放声音 咯咯笑 直到结束' (Play Sound Giggles Until End) block highlighted in yellow. The '设置内置扬声器 关' (Set Built-in Speaker Off) block is also visible.

Part 3

编程实验

程序
播放声音课下
来选择内置的
其他声音

The screenshot shows the Microsoft MakeCode for micro:bit editor interface. On the left, there is a visual representation of the micro:bit board with a red LED display showing the number '1'. Below the board are icons for running, erasing, and saving the code. The main workspace contains a script starting with a '当开机时' (When Powered On) block. Inside this block, there is a '显示图标' (Show Icon) block and a '播放声音' (Play Sound) block. The '播放声音' block has a dropdown menu open, showing a list of sound options: '咯咯笑', '快乐', '你好', '神秘', '悲伤', '滑音', '飙升', '弹簧声', '闪烁', and '打哈欠'. The '打哈欠' option is selected and checked. At the bottom of the workspace, there is a '下载' (Download) button and a status bar showing '课程1-蜂鸣器播放音效'.

Part 3

编程实验

组合程序

https://makecode.microbit.org/_0aT9maaksAqU

The screenshot shows the Microsoft MakeCode for micro:bit editor interface. On the left, there is a preview of a micro:bit board with a yellow smiley face icon and red LEDs. Below the board are icons for 'Run', 'Refresh', 'Download', and 'Help'. The main workspace is a grid where a program is being built. The program starts with a blue '当开机时' (When Powered On) block. Inside this block, there is a '显示图标' (Show Icon) block with a dropdown menu showing a 5x5 grid of LEDs. Below that is a red '播放声音' (Play Sound) block with a dropdown menu showing '打哈欠' (Yawn) and a '直到结束' (Until End) block. The bottom of the editor has a purple '下载' (Download) button and a status bar showing '课程1-蜂鸣器播放音效' (Course 1 - Buzzer Play Sound Effect).

Part 4 “

拓展思考

今天的课程你学会了吗？
如果学会了就给自己一个顶呱呱吧~
现在布置一个课后作业给你哦~

本次课实现了Micro:Bit V2主板显示一个音乐图标，
集成蜂鸣器会播放音效；

程序块中还有其他音效，赶紧试试看效果吧~~



谢谢观看!

Micro:Bit 基础课程