

YFROBOT

# Micro:Bit基础课程

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## 第七课 摇骰子

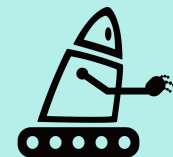
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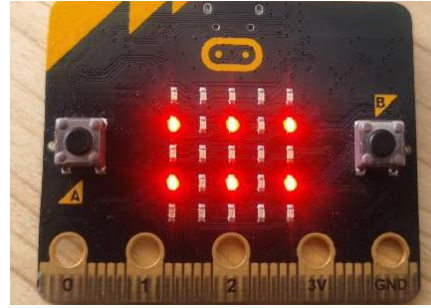
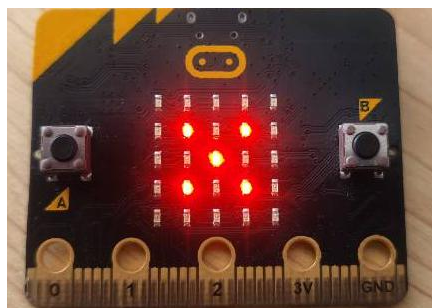
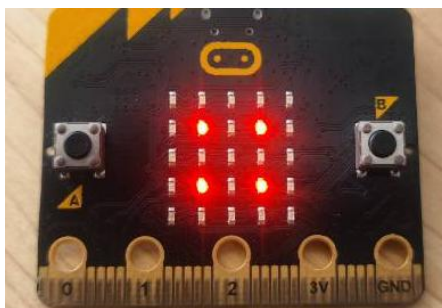
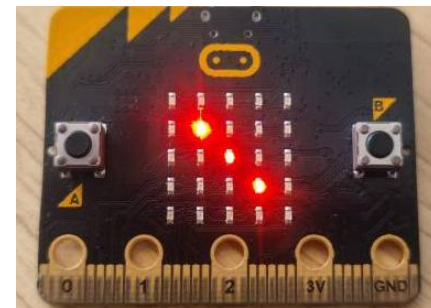
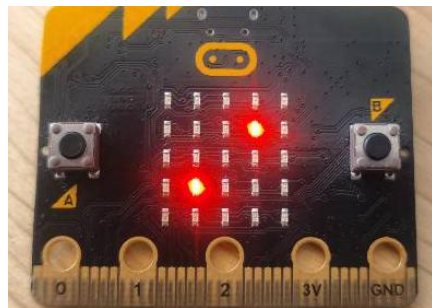
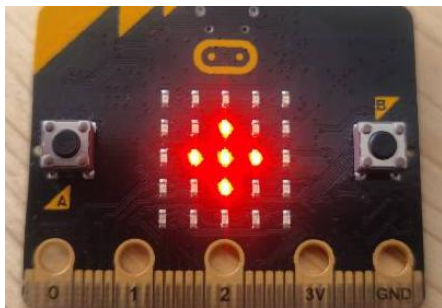
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# Part 1

## 学习目标



大家下载好程序以后，可以**摇一摇**micro:bit，点阵上就会随机的出现1-6个点哦，玩起来就和摇骰子一模一样呢。大家可以叫上自己的小伙伴一起来玩这个游戏哦，看看谁摇出的点数比较大哦~

# Part 2



## 课前准备

器材准备：

- Micro:bit主板\*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

输入栏  
当振动程序块

The screenshot shows the Microsoft MakeCode for micro:bit editor interface. On the left, a physical micro:bit V2 board is displayed. The central block palette is open to the 'Input' (输入) category, with the 'When Shaken' (当振动) block highlighted. The main workspace contains a script with the following logic:

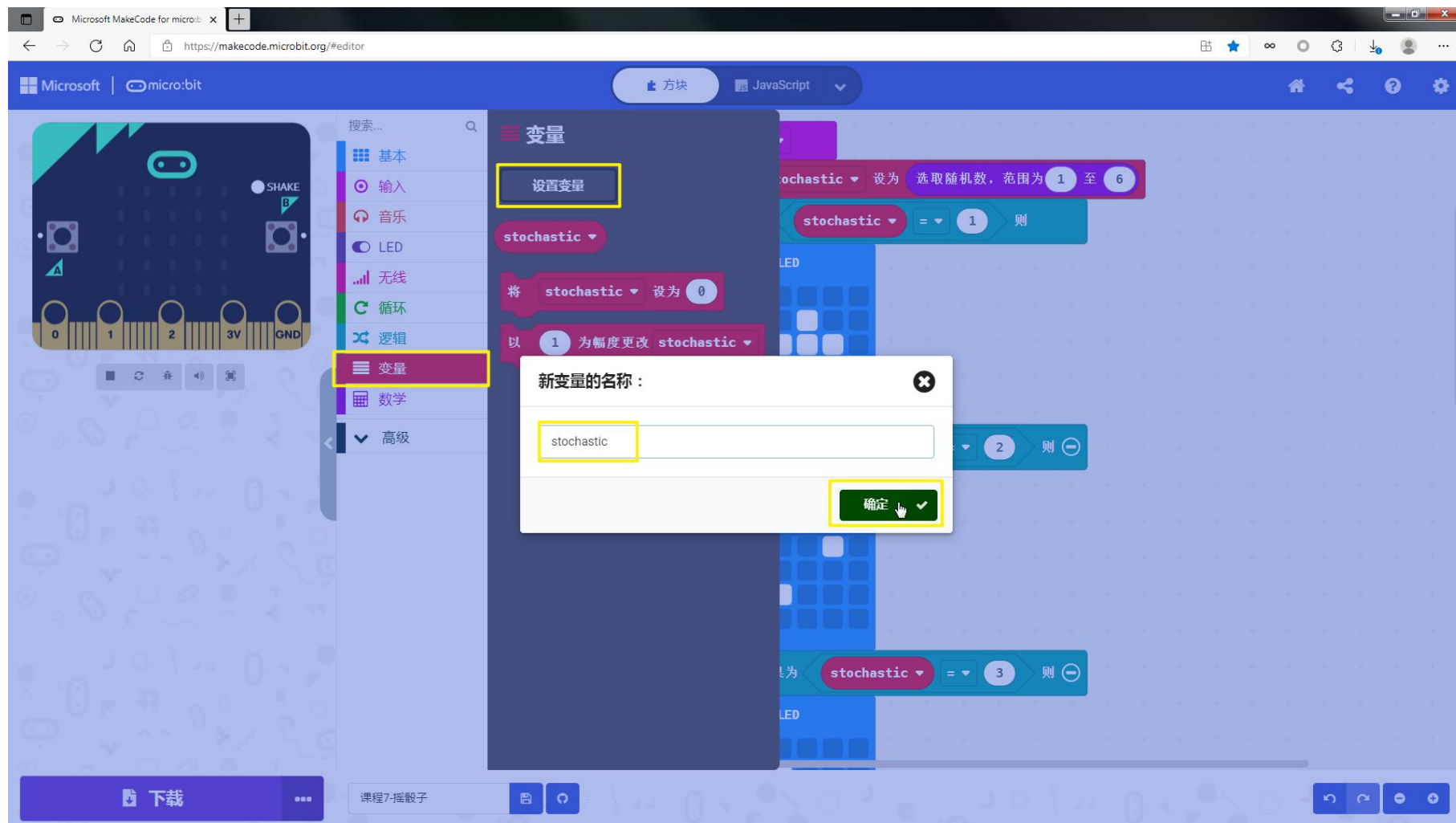
- When Shaken (当 振动):
  - Set stochastic variable to a random number between 1 and 6 (将 stochastic 设为 选取随机数, 范围为 1 至 6).
  - If stochastic equals 1 (如果为 stochastic = 1 则):
    - Show LED pattern 1 (显示 LED).
  - Otherwise if stochastic equals 2 (否则如果为 stochastic = 2 则):
    - Show LED pattern 2 (显示 LED).
  - Otherwise if stochastic equals 3 (否则如果为 stochastic = 3 则):
    - Show LED pattern 3 (显示 LED).

The bottom of the editor shows a 'Download' (下载) button and the text '课程7: 摇骰子'.

# Part 3

## 编程实验

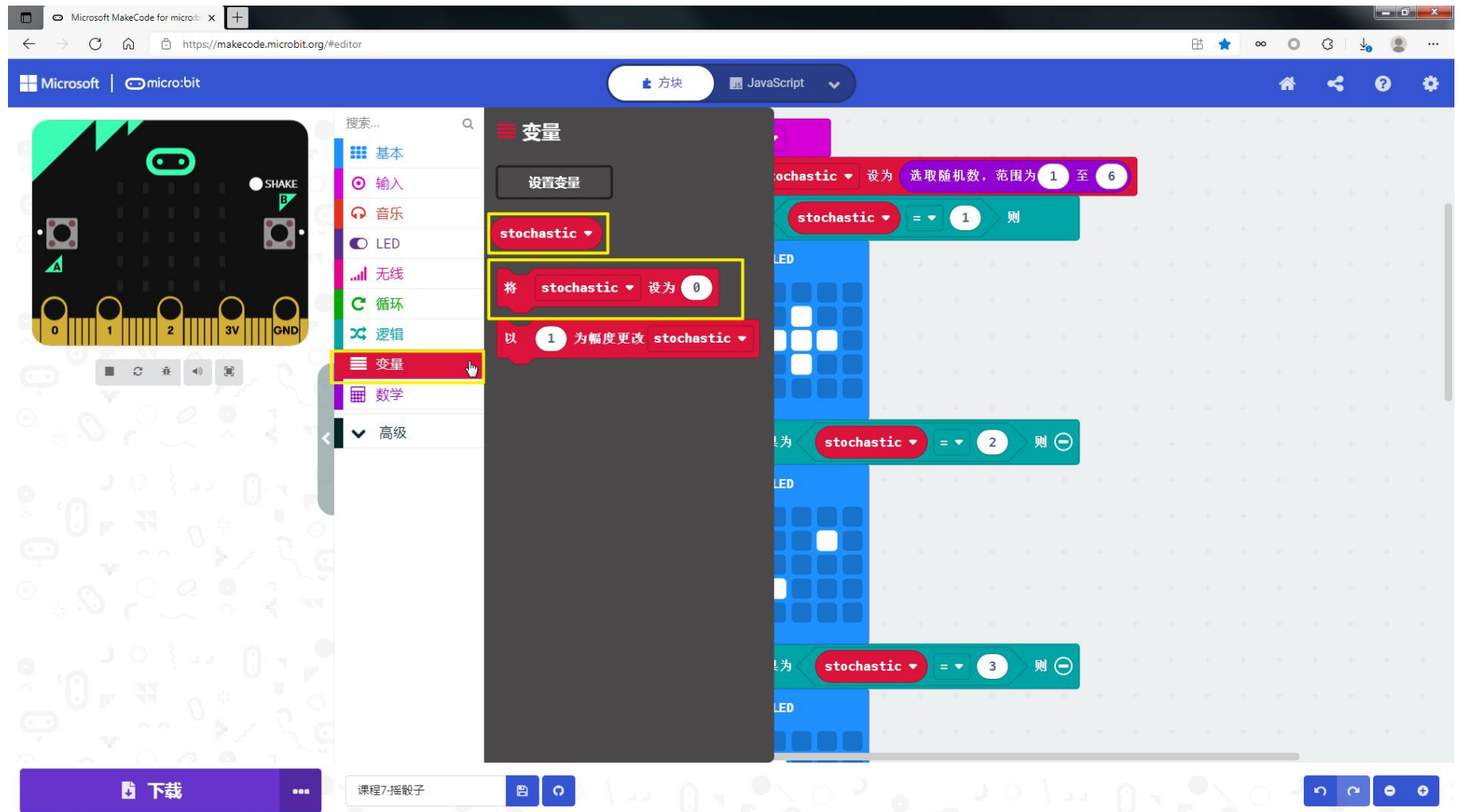
变量栏  
新建变量



# Part 3

## 编程实验

变量栏  
变量、设置变  
量值程序块





# Part 3

## 编程实验

逻辑栏  
判断、比较程  
序块

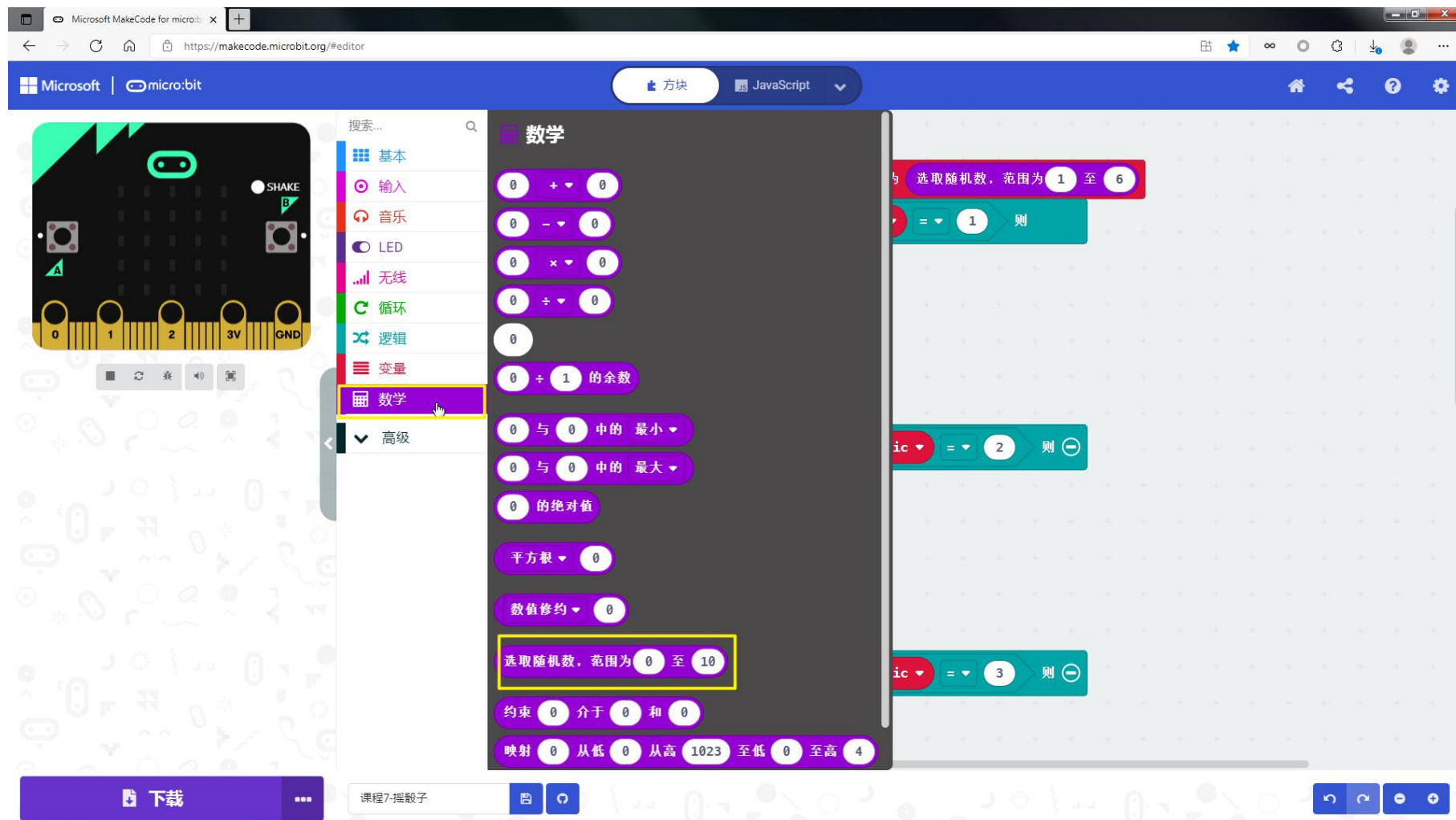
The screenshot shows the Microsoft MakeCode for micro:bit editor interface. On the left, there is a virtual micro:bit board. In the center, a palette of logic blocks is visible, with the '逻辑' (Logic) category selected. The palette includes sections for '条件' (Conditions), '比较' (Comparisons), and '布尔值' (Boolean values). The '比较' section has a yellow box around the '0 = 0' block. On the right, a script is being built on a grid. It starts with a '当 振动' (When shaken) block, followed by a '将 stochastic 设为 选取随机数, 范围为 1 至 6' (Set stochastic to pick a random number between 1 and 6) block. Below that is an '如果为 stochastic = 1 则' (If stochastic = 1 then) block containing a '显示 LED' (Show LED) block. This is followed by an '否则如果为 stochastic = 2 则' (Else if stochastic = 2 then) block with another '显示 LED' block, and finally an '否则如果为 stochastic = 3 则' (Else if stochastic = 3 then) block with a third '显示 LED' block. The bottom of the editor shows a '下载' (Download) button and a search bar containing '课程7-摇骰子'.



# Part 3

## 编程实验

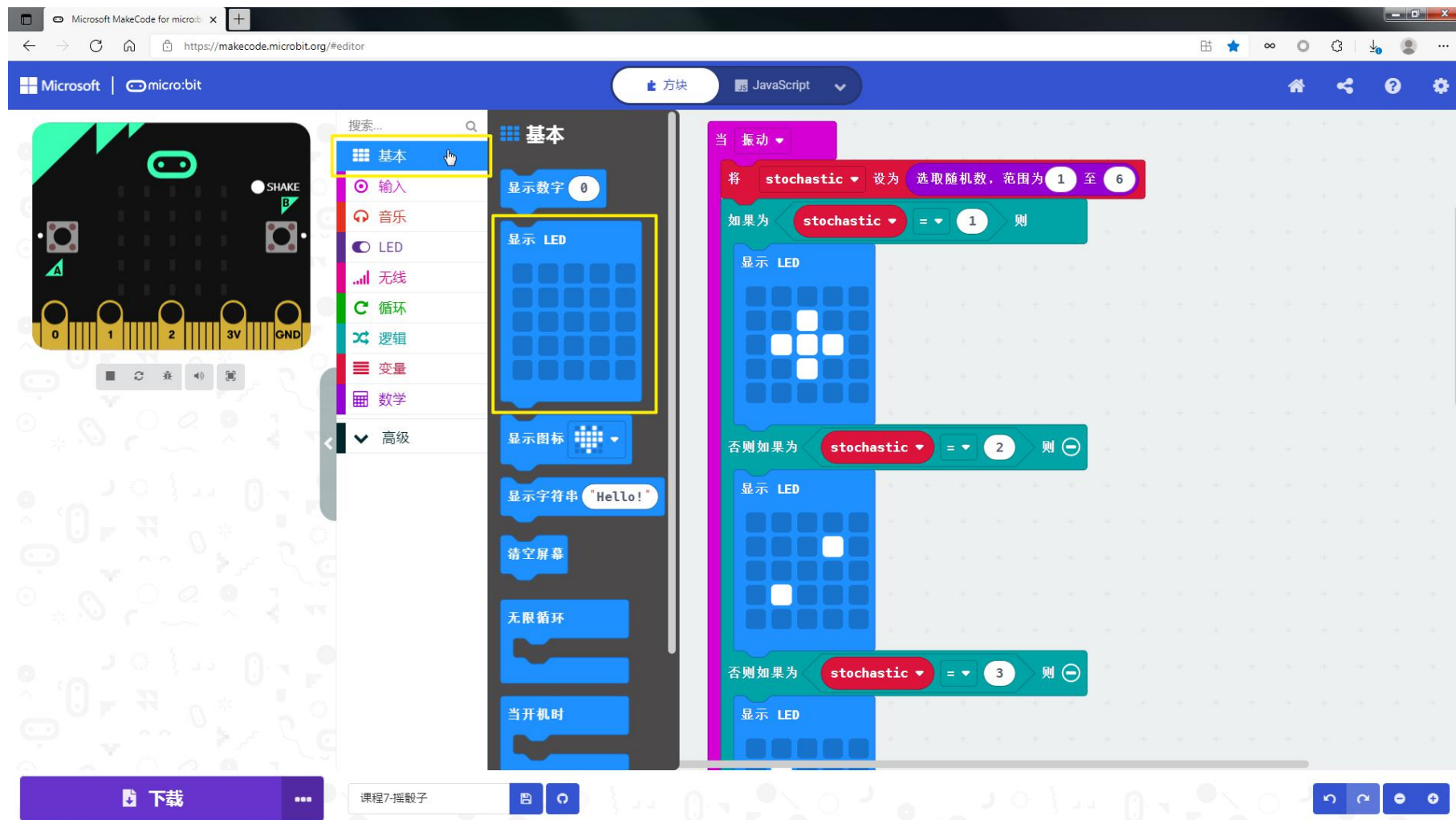
数学栏  
选取随机数程  
序块



# Part 3

## 编程实验

基本栏  
显示LED自定义程序块



# Part 3

## 编程实验

组合程序

[https://makecode.microbit.org/\\_2KiHuFampWbm](https://makecode.microbit.org/_2KiHuFampWbm)

The screenshot displays the Microsoft MakeCode for micro:bit editor interface. The browser address bar shows the URL <https://makecode.microbit.org/#editor>. The left sidebar features a search bar and a category menu with options: 基本 (Basic), 输入 (Input), 音乐 (Music), LED, 无线 (Wireless), 循环 (Loops), 逻辑 (Logic), 变量 (Variables), 数学 (Math), and 高级 (Advanced). A small image of a micro:bit board is visible in the top-left corner of the editor. The main workspace contains a JavaScript script for a dice simulation. The code starts with a '当 振动' (When shaken) event listener. It then sets a 'stochastic' variable to a random number between 1 and 6. Three conditional blocks follow: '如果为 stochastic = 1 则' (If stochastic = 1 then), '否则如果为 stochastic = 2 则' (Else if stochastic = 2 then), and '否则如果为 stochastic = 3 则' (Else if stochastic = 3 then). Each conditional block contains a '显示 LED' (Show LED) block with a specific pattern of lit LEDs. The bottom status bar shows 'Downloaded!' and the title '课程7:摇骰子' (Lesson 7: Rolling a Die).



# 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~

尝试在Micro:Bit上实现，摇一摇播放一段旋律？

开动你的小脑筋，试试看吧~



谢谢观看!

# Micro:Bit 基础课程