Micro:bit Introductory projects

Asif Mushtaq
(Associate Professor of Mathematics)

Seksjon for matematikk, Nord Universitet

Challenge (Statistics): Roll a dice

Roll on dice 20 times and record each roll as a tally mark.

Number		Tally
1		
2		
3		
4		
5		
6		

Challenge: Roll a dice with Micro:bit

- The aim of this project is to make a dice on the Micro:bit, using the onboard LEDs.
- The user should be able to shake the Micro:bit to generate a new dice face.

Learning Objects:

- Use a gesture input to control the Micro:bit.
- Create a randomly generated variable.
- Use an IF...THEN...ELSE
- Display own patterns on the LEDs

Micro:bit Step Counter

Do not wish to spend money on step counters and fitness trackers? Why not build your own with the Micro:bit! Through this project, you will make use of micro:bit onboard accelerometer to make a step counter to track your daily steps!

What do you need? (Other than the Micro:bit)

- Micro USB Cable
- AAA Battery Cage
- AAA Batteries

https://makecode.microbit.org/projects/step-counter

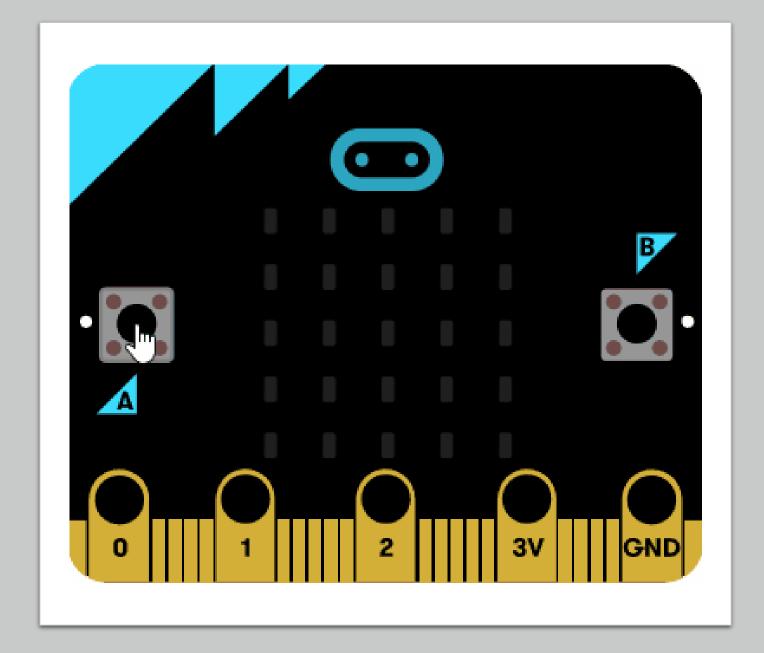


Source: https://make.techwillsaveus.com/microbit/

Coin Flipper

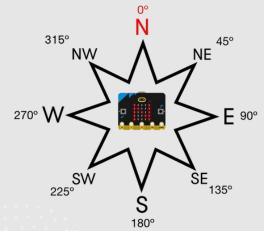
Let's create a coin flipping program to simulate an actual coin toss. We'll use icon images to represent a heads or tails result.

https://makecode.microbit.org/projects/coin-flipper



Making Compass: Compass displays the direction the micro:bit is pointing with compass

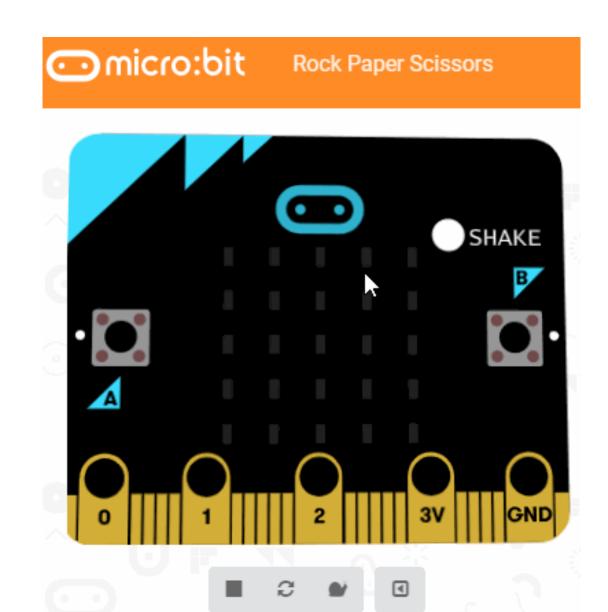
• https://makecode.microbit.org/projects/compass





https://www.youtube.com/watch?v=Wu4gi5vYv94&t=2s&ab_channel=NordicSemiconductorStudentProjects

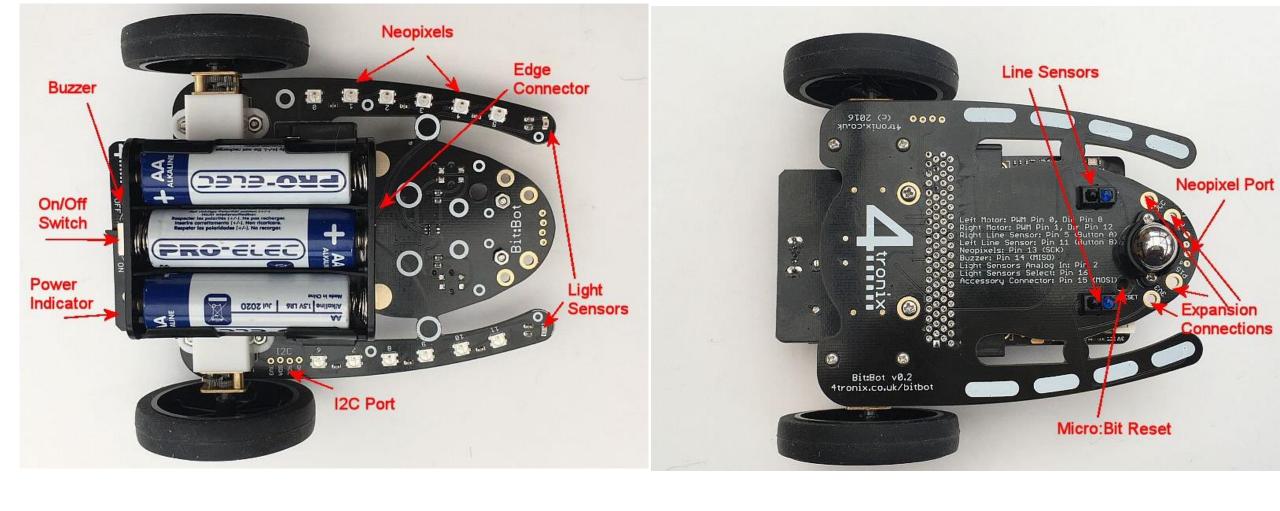
Rock Paper Scissors



https://makecode.microbit.org/projects/rock-paper-scissors

Bit:Bot Robot for Micro:bit





Features of Bit:Bot

Asif Mushtag 9