alpha

microBlocks
Small, Fast, Human Friendly

Donate
VISA

:: Introduction

MicroBlocks is a new programming language inspired by [*Scratch*] that runs right inside microcontroller boards such as the [*micro:bit*], the [*NodeMCU*] and many [*Arduino*] boards.

The MicroBlocks system allows for dynamic, parallel and interactive programming, just like in Scratch, but with the twist of letting your projects run autonomously inside the board without being tethered to a computer. Thus, MicroBlocks provides the immediacy and liveness of tethered blocks programming, while supporting real-world applications that require precision timing, autonomous operation, or physically embedding the processor into projects. For example, one might write a program to record acceleration data, then embed the microcontroller and a small battery in a model rocket to explore G-forces at launch time.

In other words, MicroBlocks lets you program your boards exactly like you would in [*Snap4Arduino*], [*S4A*] or the [*Arduino extension*] for Scratch, and when you are happy with your program you can just unplug the board from your computer and everything will keep running as if by magic!

With MicroBlocks, you can build your own "real world" digital instruments, interactive jewelry, electronic games and measuring devices, all by using blocks.
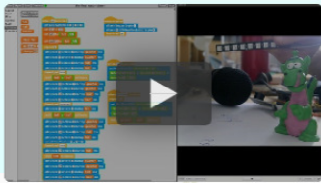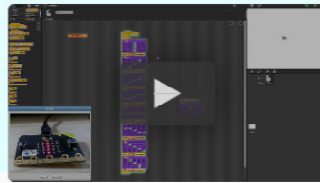
:: Examples
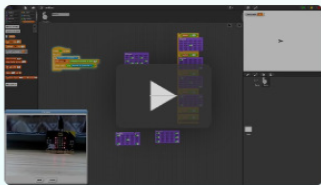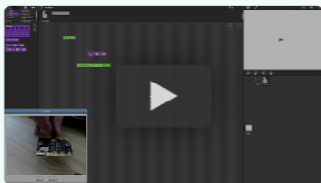

An electronic die
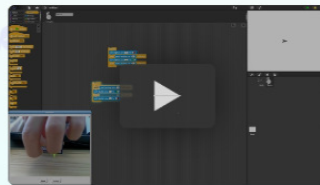
A square wave synthesizer

A rock and roll party

An animation with speed control

A bubble level

A rock-paper-scissors game

A digital music box