# tinyML® for Good

*Tiny technology for the world's biggest challenges*

## Empowering the next generation of TinyML problem solvers

Lessons from students around the world tackling the Global Goals with the BBC micro:bit

Jonny Austin - Micro:bit Educational Foundation

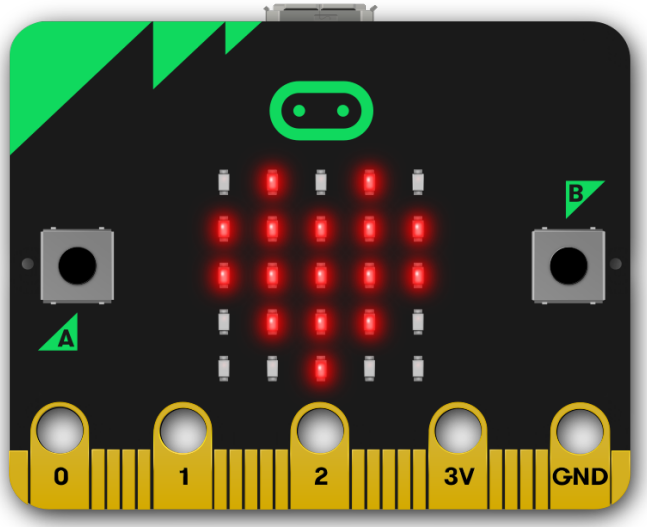
www.tinyML.org

# BBC micro:bit

Versatile, programmable IoT device that is **designed for use in the classroom**

Available in 70 countries for ~£10 in volume

More than 5 million devices distributed




*Low floor, high ceiling*

***micro:bit V2 released Nov 2020 with speaker, microphone, Cortex-M4F with 64kB RAM, 512kB Flash***

Easy to program, no installation or drivers

Simple wireless communication

Battery powered

Built-in motion sensors, instantly interactive

Hundreds of sensors and accessories


© Micro:bit Educational Foundation 2020

PROJECT

# CRO:BIT MACHINE RNING DANCE MOVE DETECTOR

a dance detecting micro:bit

# Inspire every child to create their best digital future

TINY ML For Good

# Authentic problems

+

# Accessible and effective technology

+

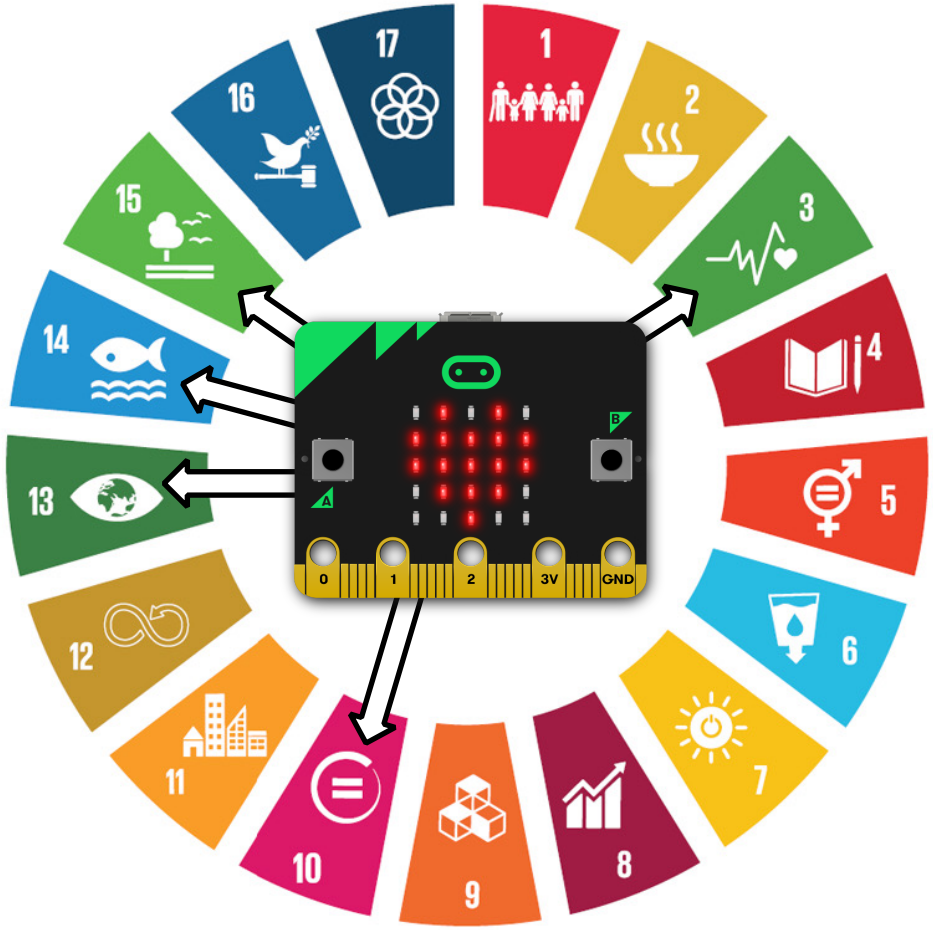
***Students who don't know what should be impossible***

=

# Incredible solutions

# do your :bit challenge

Test your imagination and combine creativity and technology to come up with solutions for the Global Goals by tackling the issues we're facing today.



Healthy Microbit

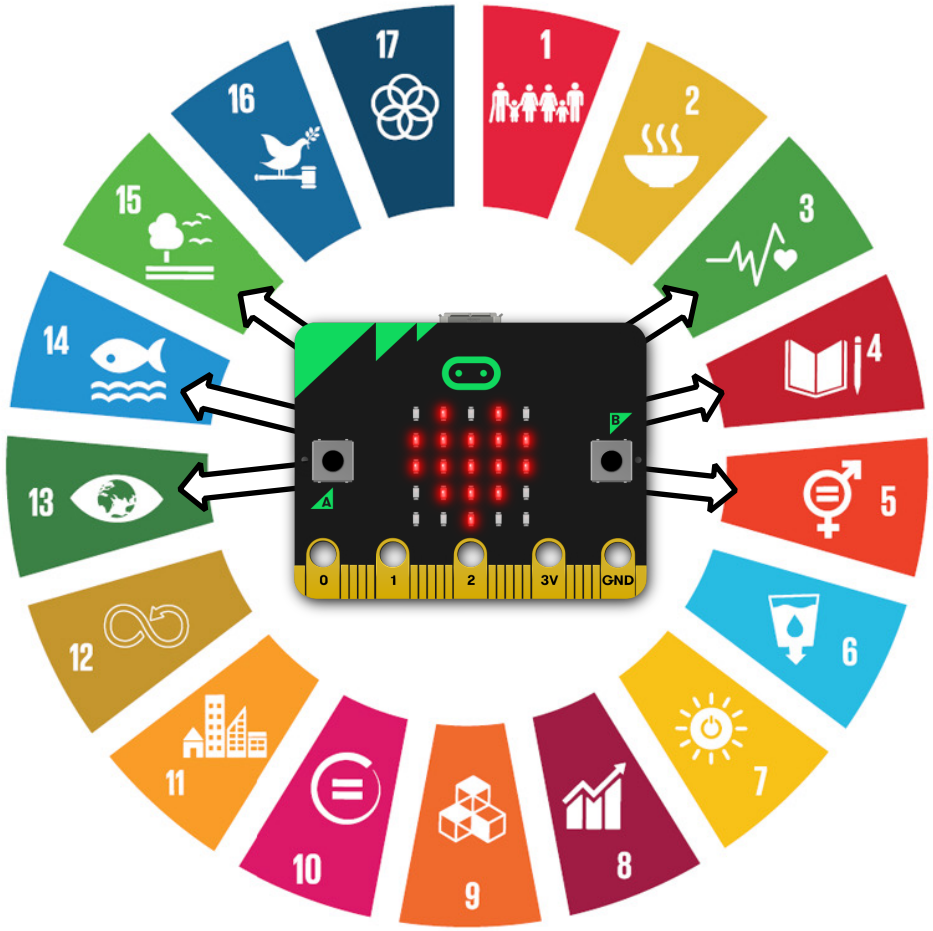
https://microbit.org/projects/do-your-bit/winners/2021/

The healthy microbit tracks how long your been inside and when the timer on the microbit hits 90minutes it says to go outside and do an activity.

# Essential to the effectiveness of micro:bit is ease of use

…and TinyML is what we are tackling next

# Example: the global goals



# Example: the global goals

# Example: the global goals

Help us! Jonny@microbit.org

# Essential to the effectiveness of micro:bit is ease of use

…and TinyML is what we are tackling next