Sound sequence

Type: Warm-up (20 mins) for 'Our beat' - rpf.io/ourbeat
For: Groups of 3–5 creators

Overview

Get your brains (and bodies) in rhythm! In small bands, creators make short sound sequences using claps, stomps, and silly noises. But there's a twist: each band must follow code-like rules to play their music correctly.

Setup

Materials needed for each group:

- A pen or pencil
- 4-beat grid to record their sequence of sounds, or 'sound code'

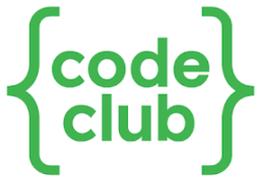## How to play

Step 1: Form a band (2 mins)
Creators get into groups of 3–5. Each person chooses their sound — they can only make one sound (e.g. clap, stomp, click, whoosh, hum).

Example:

- Player A = clap 👏
- Player B = stomp 👣
- Player C = beep 🎶
- Player D = cheer 🎉

Step 2: Build the beat (5 mins)
Creators plan their tune using the 4-beat grid. Each column of the grid is a beat, and time flows from left to right. Use a ✔ for each sound in the 4-beat grid. Blank spaces are for silence. See the example on the next page:

```
| Beat → | 1 |   | 2 |   | 3 |   | 4 |   |
| ------ | - | - | - | - | - | - | - | - |
| 👏     |   | ✔ |   | ✔ |   | ✔ |   | ✔ |
| 🥁     | ✔ |   | ✔ |   | ✔ |   | ✔ |   |
| 🎶     | ✔ |   | ✔ |   | ✔ | ✔ | ✔ |   |
| 🎉     |   | ✔ |   |   |   |   |   | ✔ |
```

Step 3: Perform your sounds (5 min)

Each band performs their sequence live in front of the other bands, sticking to their rules exactly. Challenge each band to be precise — no freestyling!

Step 4: Debug and remix (5 min)

After watching each other, bands can:

- Suggest small changes to another band's sequence (e.g. loop a sequence 4 times, or add more sounds)
- Try to remix another band's sequence (e.g. reverse it) or add a condition (e.g. only clap on an even number)

Challenge

Creators can add another sequence to build up a song. You could also combine more than one band, perhaps starting them on different beats.
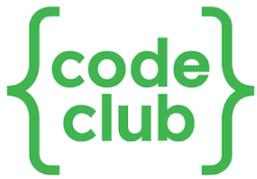

Wrap-up: Key takeaways (2 min)

- Sequences and loops help create music
- Rules and logic must be followed precisely
- Each person (or part) has a role in the sound system

Online project

Now that your creators have explored how sequences and loops can create rhythms, they can try out the 'Our beat' project to code their own musical micro:bit band!
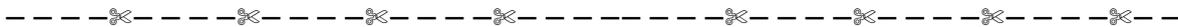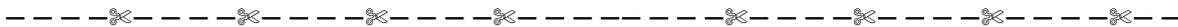
Check it out here: rpf.io/ourbeat

4-beat grids

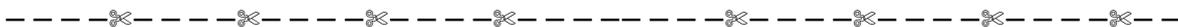## (Up to 4 sounds)

```
| Beat → | 1 |   | 2 |   | 3 |   | 4 |   |
| ------ | - | - | - | - | - | - | - | - |
| 👏     |   |   |   |   |   |   |   |   |
| 🥁     |   |   |   |   |   |   |   |   |
| 🎵     |   |   |   |   |   |   |   |   |
| 🎉     |   |   |   |   |   |   |   |   |
```

— — — —✂— — — —✂— — — —✂— — — —✂— — — —✂— — — —✂— — — —✂— —

```
| Beat → | 1 |   | 2 |   | 3 |   | 4 |   |
| ------ | - | - | - | - | - | - | - | - |
| 👏     |   |   |   |   |   |   |   |   |
| 🥁     |   |   |   |   |   |   |   |   |
| 🎵     |   |   |   |   |   |   |   |   |
| 🎉     |   |   |   |   |   |   |   |   |
```

— — — —✂— — — —✂— — — —✂— — — —✂— — — —✂— — — —✂— — — —✂— —

(Up to 8 sounds)

```
| Beat → | 1 |   | 2 |   | 3 |   | 4 |   |
| ------ | - | - | - | - | - | - | - | - |
| 👏     |   |   |   |   |   |   |   |   |
| 🥁     |   |   |   |   |   |   |   |   |
| 🎵     |   |   |   |   |   |   |   |   |
| 🎉     |   |   |   |   |   |   |   |   |
|        |   |   |   |   |   |   |   |   |
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|        |   |   |   |   |   |   |   |   |
|        |   |   |   |   |   |   |   |   |
```

— — — —✂— — — —✂— — — —✂— — — —✂— — — —✂— — — —✂— — — —✂— —

```
| Beat → | 1 |   | 2 |   | 3 |   | 4 |   |
| ------ | - | - | - | - | - | - | - | - |
| 👏     |   |   |   |   |   |   |   |   |
| 🥁     |   |   |   |   |   |   |   |   |
| 🎵     |   |   |   |   |   |   |   |   |
| 🎉     |   |   |   |   |   |   |   |   |
|        |   |   |   |   |   |   |   |   |
|        |   |   |   |   |   |   |   |   |
|        |   |   |   |   |   |   |   |   |
```

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