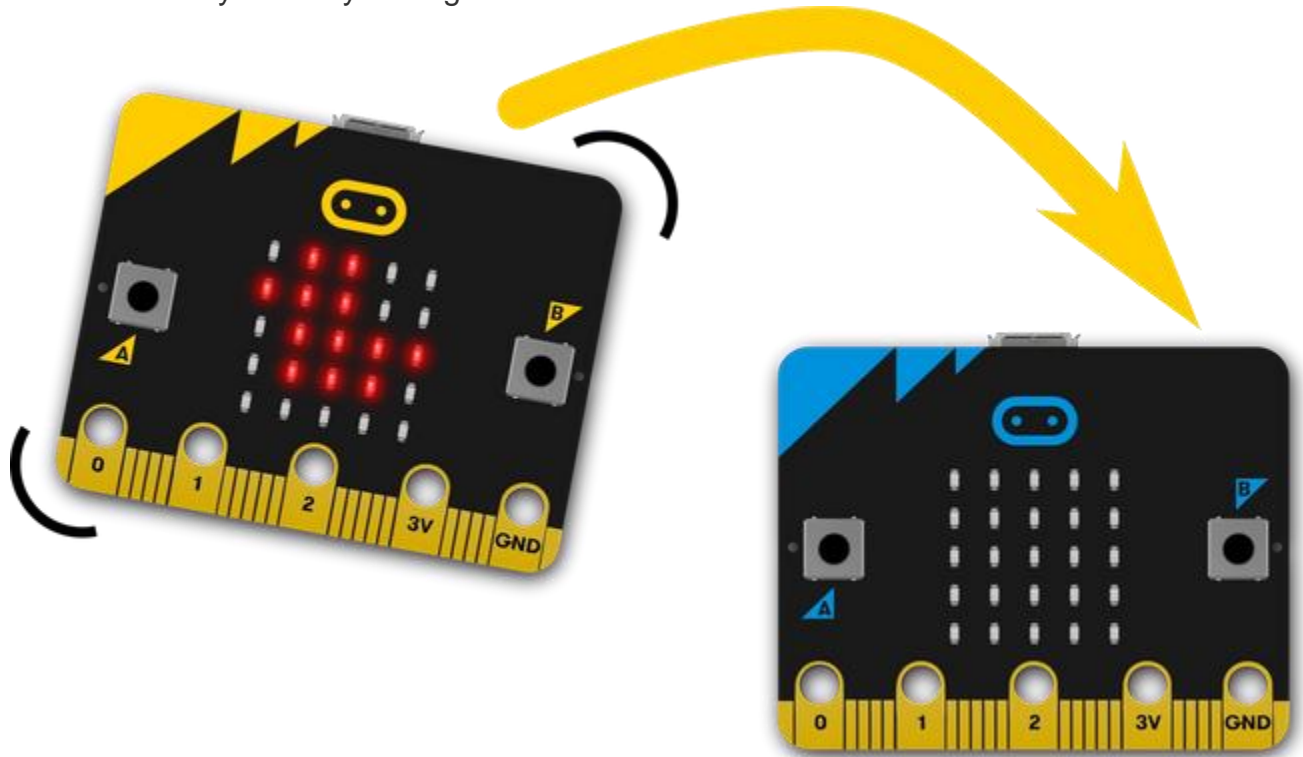# Teleporting duck

Step 1: Make it

What is it?

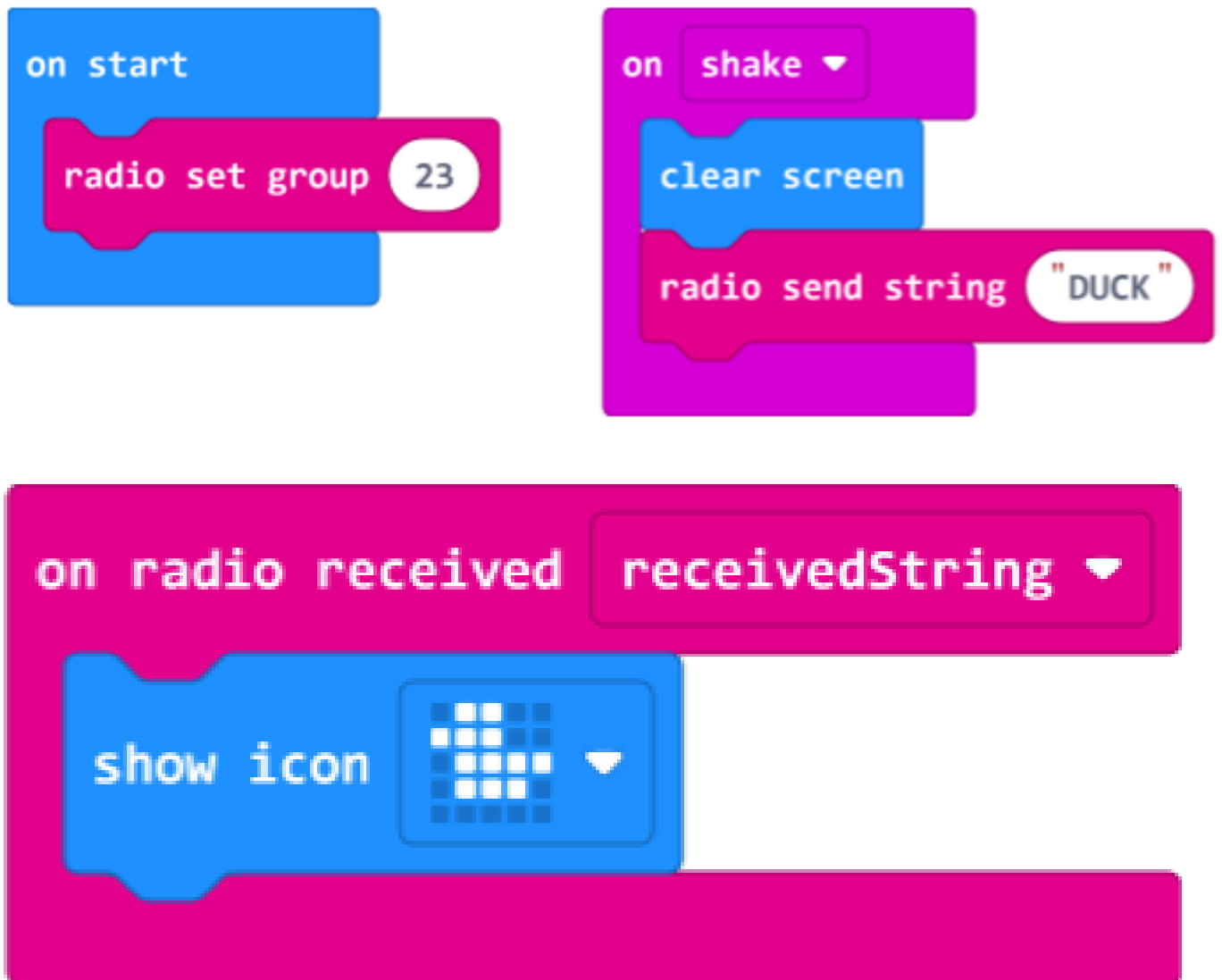Make a duck fly invisibly through the air from one micro:bit to another.

How it works

- Flash this program onto two micro:bits, shake one and a duck appears to travel magically through the air from one to the other. Shake the other to send it back.

- It's not really magic. It uses the micro:bit's radio function to send data from one micro:bit to another when the accelerometer detects a shake gesture.

- The program first sets the radio group to 23. Groups are like channels on walkie-talkie radios; they can be number between 0 and 255. It doesn't matter what number you pick as long as your friend's micro:bit is using the same group number, and no-one else nearby is using the same group.

- When you shake it, it sends the word 'DUCK' on that radio group and clears the screen. If either micro:bit receives a radio message (**any** radio message), a duck icon appears on its display, so you should only ever have 1 duck visible at any time.

What you need

- 2 micro:bits (or MakeCode simulator)
- MakeCode or Python editor
- battery packs (optional)
- a friend to play with

Step 2: Code it


```
on start
    radio set group 23
```

```
on shake ▾
    clear screen
    radio send string "DUCK"
```

```
on radio received receivedString ▾
    show icon ▾
```

Step 3: Improve it

- Find out how far apart you can go for this still to work.
- Teleport other animals. Would you need to change the picture, the message – or both?
- What happens if more than 2 of you use the same radio group? How can you fix this?