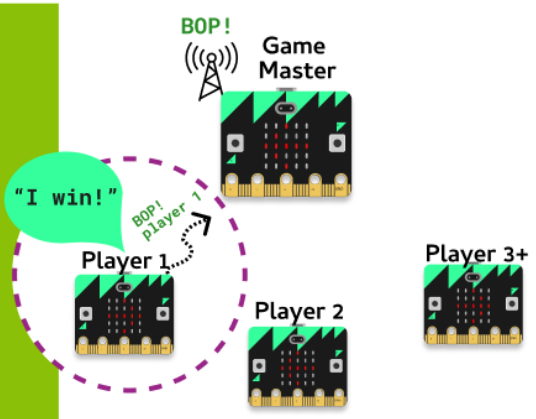
Extension

Bop It Battle!

(Player Code)

Create a multiplayer game where you battle for each point with your friends!



Task 1.1: Configure the Radio

We need to configure the radio to start off with

1. Go to the Grok Playground called **Bop It Battle (Player)**
2. At the top of your program, `import radio`.
3. After the target image is displayed, turn the radio on with `radio.on()`
4. Then configure the radio's channel with `radio.config(channel=100)`. Your room coordinator will tell you what number to use.

Task 1.2: Ready, Set, Go!

Now, we're going to receive the action from the game master!

1. Find where you first set the `action` randomly. It should be above your `while` loop. `Comment` out this line!
2. Inside the game loop, change the `action` variable so it has the value of the incoming radio message.

Hint - Receiving messages

You can receive messages via radio using:

```
incoming = radio.receive()
```

Task 1.3: Run only once!

We're only competing for each individual point. So when we have a score of 1, the game should end.

1. Update the `while` loop so it only runs while `score` is equal to `0`.

Task 1.4: Send the winner!

Now, tell the game master you've won!

1. Outside the while loop, at the end of the program, send a message to the game master saying your name!

Hint - Sending messages

You can send messages via radio using:

```
radio.send("My message")
```

☑ CHECKPOINT ☑

If you can tick all of these off you have finished this Extension:

☐ You have the radio configured

☐ You receive the action from the game master

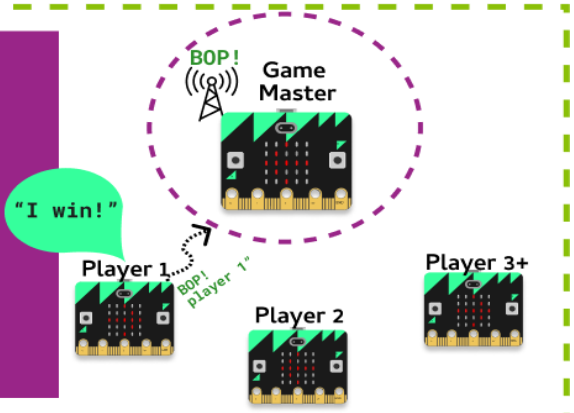
☐ You send your name to the game master when you have won a point

Extension

Bop It Battle!

(Game Master Code)

Create a multiplayer game where you battle for each point with your friends!



Task 2.1: Configure the Radio

We'll need to start a new file for our game master!

1. Go to the Grok Playground called **Bop It Battle (Game Master)**
2. At the top of your file, `import` the `micro:bit` and `radio` modules.
3. Turn the radio on with `radio.on()`.
4. Configure the radio to use the channel that the room coordinator gave you.

Task 2.2: Ready, Set, Go!

Let's set up the variables we need!

1. Create a variable called `winner`, and set it to `None`.
2. Constantly scroll a message that says `"CHOOSE ACTION TO START"`.
3. Make sure your message has a wait of `False`.

Task 2.3: Game loop!

Now, let's set up the game loop!

1. Create a `while` loop that continually loops until `winner` is not equal to `None`.
2. Inside the `while` loop, set `winner` to be the incoming radio message.
3. Outside the `while` loop, at the end of your code, `scroll` who won the game continuously!

Task 2.4: Choose your move!

Now, we need to choose our move and send it to the players!

1. Inside the `while` loop, check to see `if` **`button_a`** was pressed.
2. If it was, show a left arrow, and send a radio message saying `"button a"`.
3. Create another if statement that checks `if` **`button_b`** was pressed.
4. If it was, show a right arrow and send a radio message saying `"button b"`.

Task 2.5: Testing time!

Try playing a game with your game master!

1. Test your Game Master! Which player won?

☑ CHECKPOINT ☑

If you can tick all of these off you have finished this Extension:

☐ You have configured your radio using the channel number the room coordinator gave you.

☐ Your radio sends a message of “button a” when button_a was pressed.

☐ Your radio sends a message of “button b” when button_b was pressed.

☐ When there is a winner, their name is displayed!