

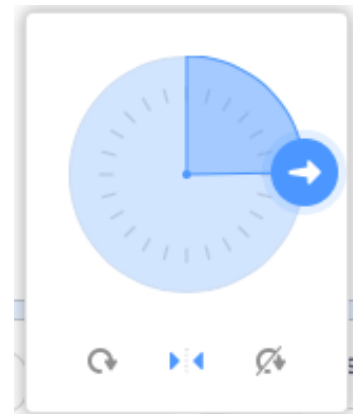
Scratch Aquarium



Register/login at <https://scratch.mit.edu>
Remember to write down your password.

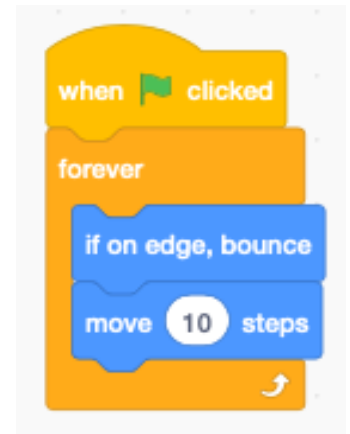
Create an aquarium and watch the fish school together.

- 1) Choose a fishy sprite and a suitable aquarium background.
- 2) Click on **Direction** and play with changing the angle. To make the fish flip between looking left and right, click on the *mirroring* button (middle).



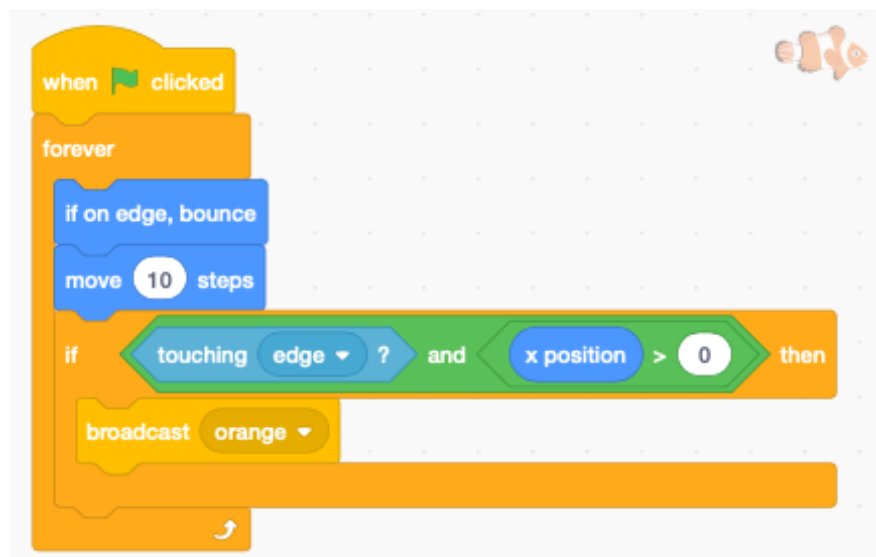
Make the fish swim left and right

- 3) The code starts when you click the green flag. Add a **forever** loop.
- 4) Inside the loop check if the fish has hit an edge, “**if on edge, bounce**.” This turns the fish around at the edge of the tank.
- 5) Finally, add “**move 10 steps**” to move the fish forward.

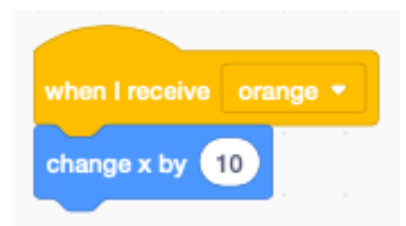


To make the fish swim together they must talk to each other.

When the fish bump into the side of the tank, move them closer together.



- 6) Insert an **if** block and add the **and** operator.
- 7) Check that the fish is touching one of the edges of the tank with **touching edge**.
- 8) Check this is on the right-hand side with **x position > 0** (the left side would be **x position < 0**).
- 9) **Broadcast** a new message with the fish colour e.g. **orange**.
- 10) Add an event to **receive** the message.
Add **change x by 10** (moves it right).
- 11) Right-click on the fish sprite and **duplicate** it to make another.



*Watch the fish eventually school together.
Add different fish and change the message colour.*

Save your code with a good name. **File > Save now**