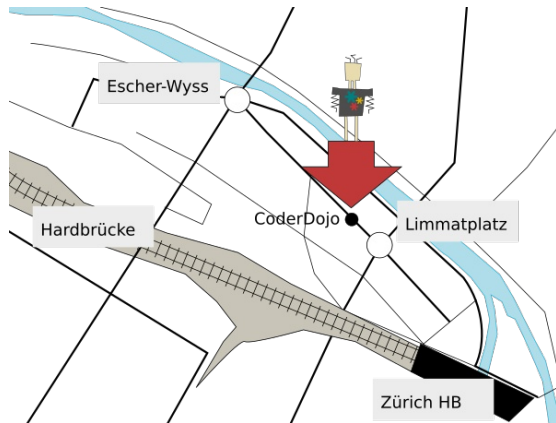CoderDojo is a free programming club for kids and teenagers between 7 and 17.

CoderDojo encourages independent learning through work on projects, mutual assistance, and creation of innovative projects.
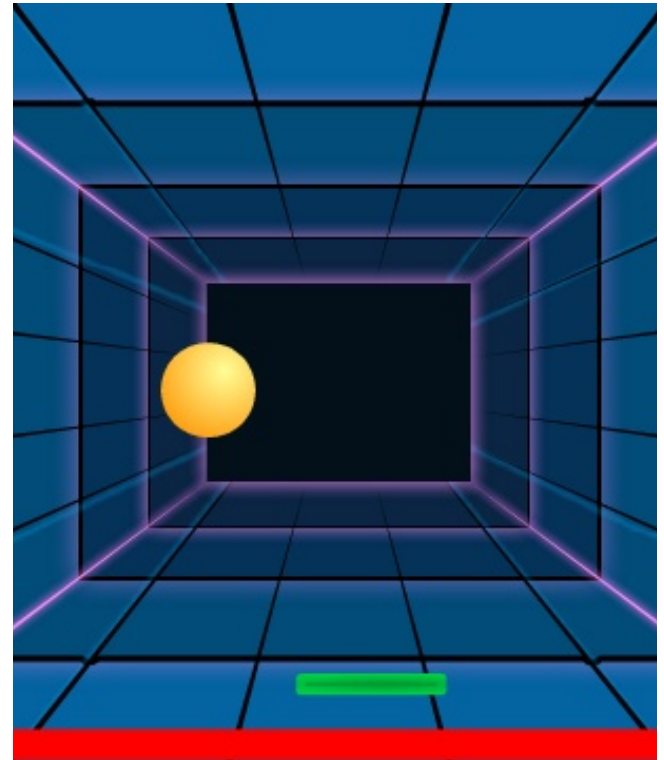
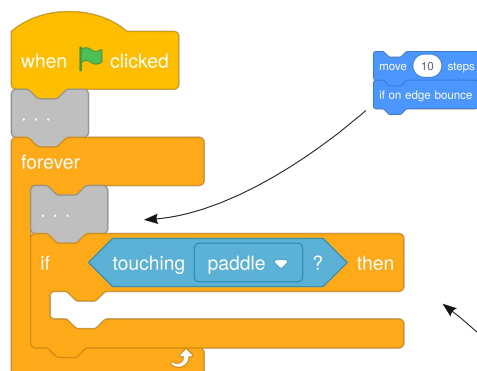Every Sunday, 15:00 - 17:00 @ Liip

Limmatstrasse 183
8048 Zürich
http://coderdojozh.ch

Pong game

Move the paddle left and right. Prevent the ball from touching the floor.

Programming

The ball should check if it touches the paddle:

```
when 🏳 clicked
...
forever
  ...
  if  touching  paddle ▼  ?  then

move 10 steps
if on edge bounce
```

When it touches the paddle, it should bounce back.

```
play sound  water drop ▼
point in direction  pick random -75 to 75
move 15 steps
```

Pong game

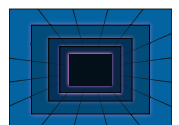Pong is one of the oldest computer games.

The ball moves on the screen in all directions.

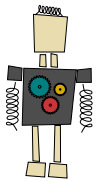Move the paddle, so that the ball does not touch the floor.

Preparations

To create the game, you will need:
- a ball
- a paddle
- a floor
- and a cool background

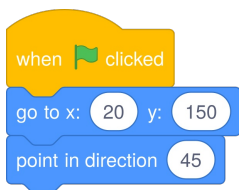Pick the sprites from the library or draw them yourself.

As soon as the ball touches the red floor, the game should stop.
Add this to the Ball's forever loop:

```
if      touching  floor ▼     then
  stop  all ▼
```

– Count the points.
– Use the keyboard to control the paddle.
– Set the ball bounce direction depending on the side of the paddle that has been touched - left, center or right (you can use colors to do it or calculate the x coordinate).
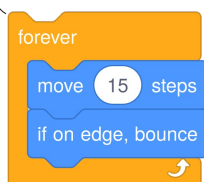
CoderDojo Zürich

Creative Commons License CC-BY-SA, Coderdojo Zürich, Ale Rimoldi, Gian-Maria Daffré.

After clicking on the green flag,
the ball should go to its
starting position:

```
when 🏳 clicked
go to x: 20 y: 150
point in direction 45
```

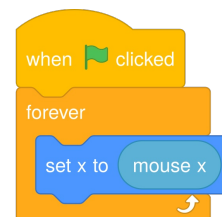Then, the following code will make the ball move and bounce.

```
forever
  move 15 steps
  if on edge, bounce
```

🏳 🛑

Click on the green flag and the ball should start moving in all directions.

Place the paddle at the bottom of the screen and add the code to move it left and right.

```
when 🏳 clicked
forever
  set x to mouse x
```

The paddle follows the x coordinates of the mouse.

🏳 🛑

Click on the green flag and, when you move your mouse, the paddle should start moving left and right.