Pong Game Cards

Make a bouncing ball game with sounds, points, and other effects.

Pong Game Cards

Use these cards in this order:

1 Bounce Around

2 Move the Paddle

3 Bounce Off the Paddle

4 Game Over

5 Score Points

6 Win the Game

Bounce Around

Make a ball move around the Stage.
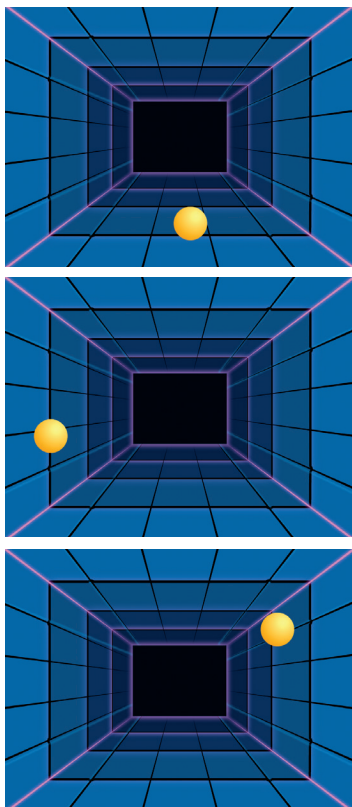
Bounce Around

scratch.mit.edu/pong

GET READY
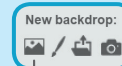
New backdrop: 🖼️ / ⬆️ 📷

Choose a backdrop.

neon tunnel

Choose a ball.

New sprite: 🐱 / ⬆️ 📷

Ball

ADD THIS CODE

```
when 🏴 clicked
go to x: 0 y: 160          ── Set the initial position.
point in direction 45 ▾    ── Type the initial direction.
forever
    move 15 steps          ── Type a bigger number
    if on edge, bounce         to move faster.
```

TRY IT

Click the green flag to start.   🏴 🔴

TIP

point in direction ▾   sets the direction of the ball.
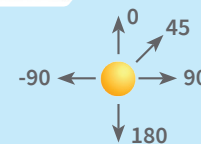
```
        0
        ↑   45
        ↗
-90 ←  🟡  → 90
        ↓
       180
```

Move the Paddle

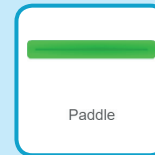### Control a paddle by moving your mouse pointer.
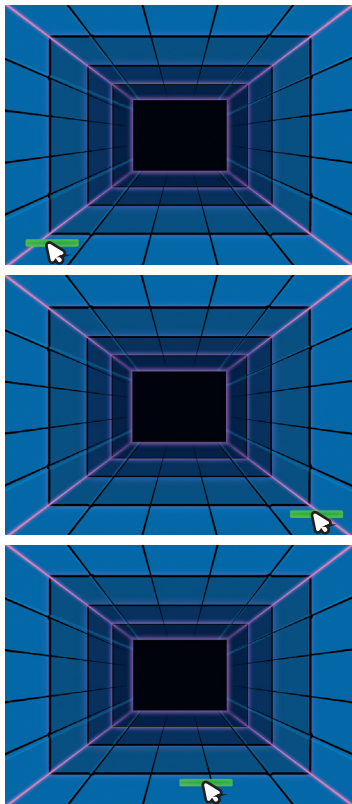
Move the Paddle

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GET READY

Choose a paddle.

New sprite:

Paddle

Drag the paddle to the bottom of the Stage.

ADD THIS CODE

```
when [flag] clicked
forever
  set x to (mouse x)
```
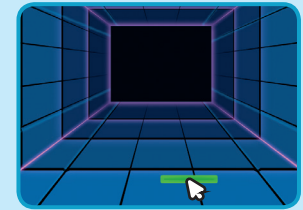
Insert the **mouse x** block in the **set x to** block.

TRY IT

Click the green flag to start.

Move your mouse pointer to move the paddle.

TIP

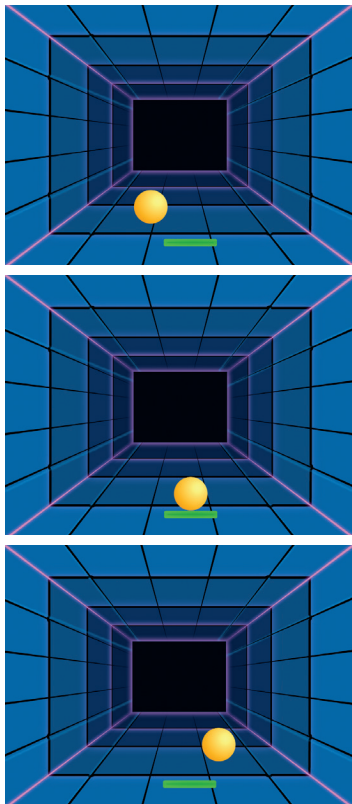**mouse x** changes as you move the mouse pointer across the Stage.

Bounce Off the Paddle

Make the ball bounce off the paddle.

Pong Game   **3**   SCRATCH

Bounce Off the Paddle

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GET READY

Click to select the **Ball** sprite.

Sprites
Ball   Paddle

ADD THIS CODE

```
when [flag] clicked
forever
    if < touching [Paddle ▼] ? > then
        turn ↻ (180) degrees
        move (15) steps
        wait (0.5) secs
```
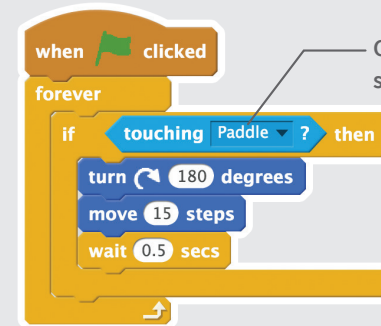
Choose the **Paddle** sprite from the menu.

TRY IT

Click the green flag to start.

TIP

Insert a **pick random** block to make the ball bounce in different directions.

```
turn ↻ (pick random (170) to (190)) degrees
```

Use numbers around 180.

Game Over

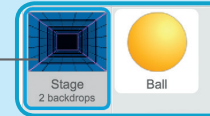Stop the game if the ball hits the red line.
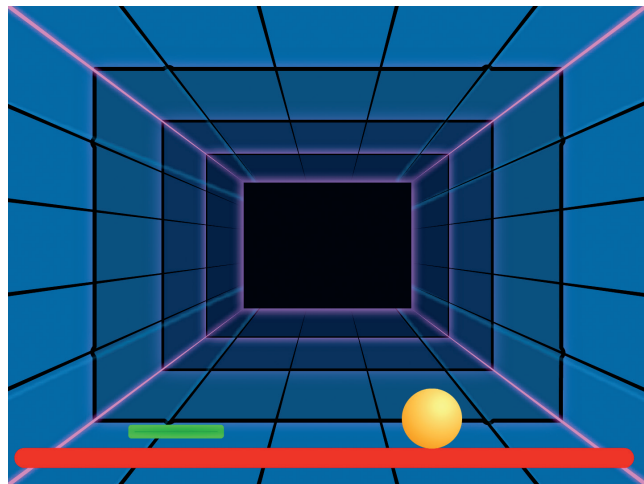
Game Over

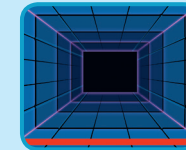scratch.mit.edu/pong

GET READY

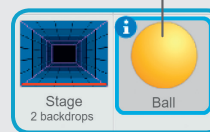Click to select the Stage.

Then, click the Backdrops tab.

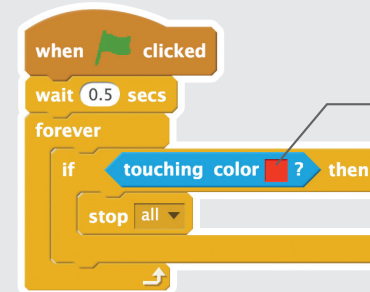Choose the **Line** tool and pick the color red.

Draw a line at the bottom. (To make a straight line, hold down the Shift key while drawing.)

ADD THIS CODE

Click to select Ball.

Click the Scripts tab.

```
when [green flag] clicked
wait 0.5 secs
forever
    if < touching color [red] ? > then
        stop all ▾
```

To pick the color, click this square and then click the red line on the Stage.

TRY IT
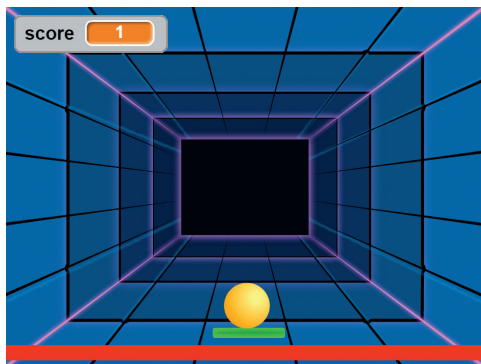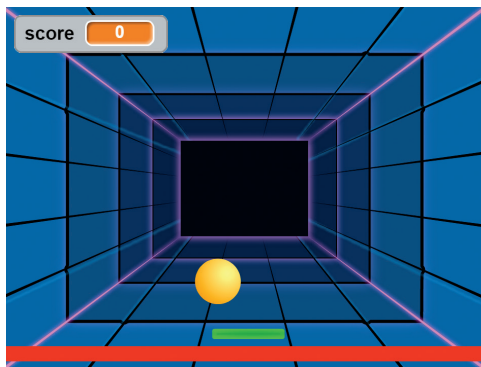
Click the green flag to start.

Score Points

Add a point each time you hit
the ball with the paddle.

score | 0

score | 1

Score Points

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GET READY

Looks	Control
Sound	Sensing
Pen	Operators
Data	More Blocks

Make a Variable

Make a List

Choose **Data**.
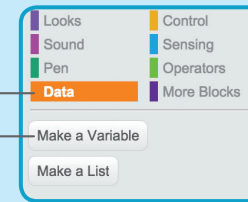
Click the **Make a Variable** button.

New Variable

Variable name: score

◉ For all sprites ◯ For this sprite only

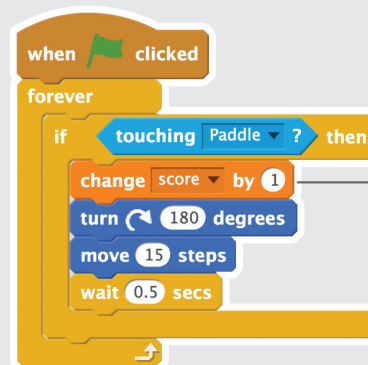☐ Cloud variable (stored on server)

OK   Cancel

Name this variable **score**
and then click **OK**.

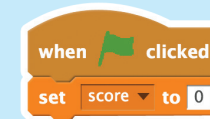## ADD THIS CODE

Ball

```
when 🚩 clicked
forever
    if  touching Paddle ?  then
        change score by 1
        turn ↻ 180 degrees
        move 15 steps
        wait 0.5 secs
```

Add this block.

TIP

Use a **set score to 0** block to reset the score when you click the green flag.

```
when 🚩 clicked
set score to 0
```

Pong Game

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SCRATCH

Win the Game

When you score enough points, display a winning message!

score **5**
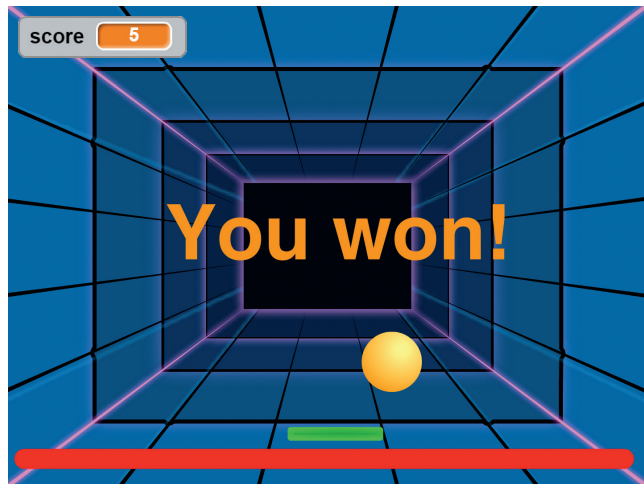
You won!

Pong Game   **6**   SCRATCH

Win the Game

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GET READY

Click the paintbrush to draw a new sprite.

New sprite: 🖌️ 📁 📷

Click the **Convert to vector** button.

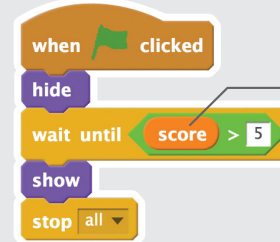Bitmap Mode
Convert to vector

Use the **Text** tool to write a message, like "You won!"

You won! T

You can change the font color, size, and style.

ADD THIS CODE

Click the Scripts tab.

when 🚩 clicked
hide
wait until score > 5
show
stop all

Insert the **score** block.

TRY IT

Click the green flag to start.

🚩 🔴

Play until you score enough points to win!