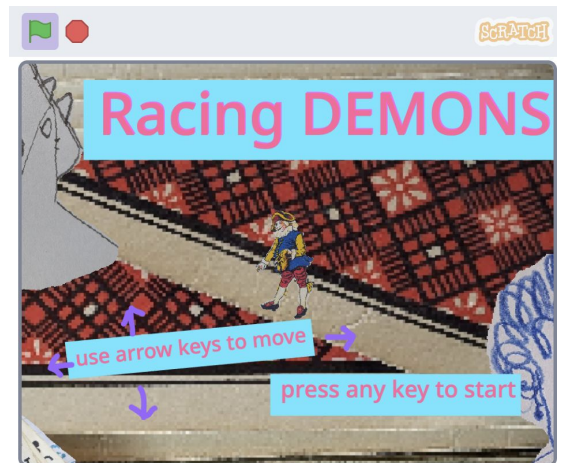# Making flatgame art

Flatgames are very simple games where players explore artwork, drawings, and cut-out collages.

Play a flatgame rpf.io/flatgame-example
Club mentor helpsheet rpf.io/flatgame-mentor

You start by crafting and making hand-drawn artwork based on your Code Club.

---

1. Decide what your flatgame will be about.

   This is your chance to share what Code Club means to you.

   You could base your idea on things you see at your Code Club right now, or use one of these prompts to help →

   💡 Your favourite thing to do at Code Club
   💡 The first thing you see when you arrive every week
   💡 A tool you use all the time
   💡 The best game ever made at Code Club!
   💡 Your journey to or from Code Club
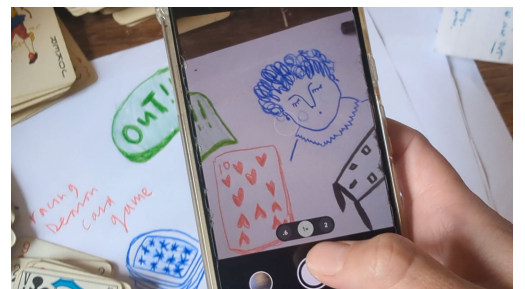
---

2. Draw or craft characters, backgrounds, textures, words, and anything else related to your idea.

---

3. With a tablet or phone, take photos of your artwork 📸

   You can take photos of textures or objects around the room to use later as a background, texture, or sprite.

   Remember: Don't take photos of people's faces or identifying features.

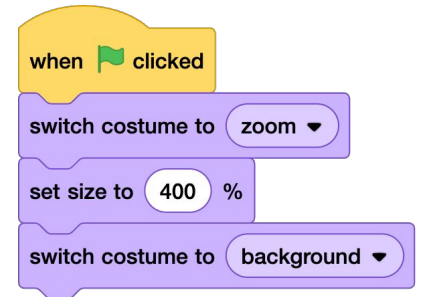4. Transfer your photos to your computer — you might need to get your club leader to help you.

   If you don't have a camera, download artwork here: **rpf.io/flatgame-artwork**

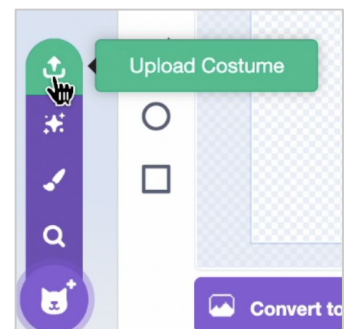{code club}

Background sprite (1 of 2)

background

Go to the starter project at rpf.io/flatgame.

1. Select the **background** sprite. It will already have this starter code:
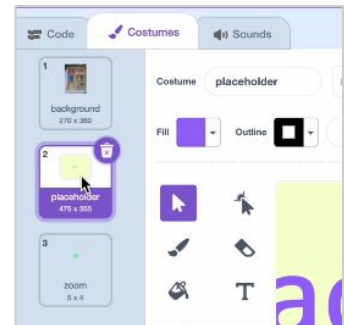

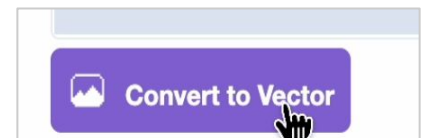2. Click the 'Upload Costume' icon, and choose one of your photos.

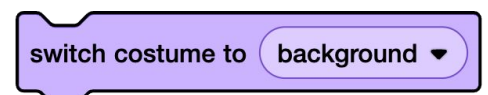   Rename the sprite "background" and drag it to the top.

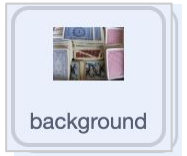3. Delete the placeholder costume, but make sure you **do not** delete the zoom costume.

4. Click 'Convert to Vector'.

5. In the starter code, change the pull-down menu in the switch costumes block to say "background".

Background sprite (2 of 2)

To make a moving effect, the background sprite needs to move on the x and y axis when the arrow keys are pressed.

background

6. Add the blocks below to the starter code:

```
when 🚩 clicked
switch costume to (zoom ▼)
set size to (400) %
switch costume to (background ▼)
go to (back ▼) layer
set (move x ▼) to (0)
set (move y ▼) to (0)
forever
    set x to (move x)
    set y to (move y)
    if < key (left arrow ▼) pressed > then
        change (move x ▼) by (1)
    if < key (right arrow ▼) pressed > then
        change (move x ▼) by (-1)
    if < key (up arrow ▼) pressed > then
        change (move y ▼) by (-1)
    if < key (down arrow ▼) pressed > then
        change (move y ▼) by (1)
```

When the green flag is clicked, the move variables are set to 0 ⟶

The x and y values are set to move x and move y variables ⟶

If an arrow key is pressed , the move variables will change by 1 or -1 ⟶
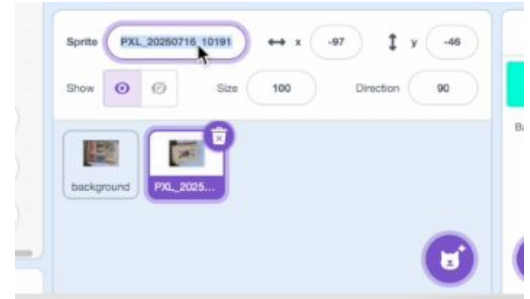
All the blocks are in a forever loop
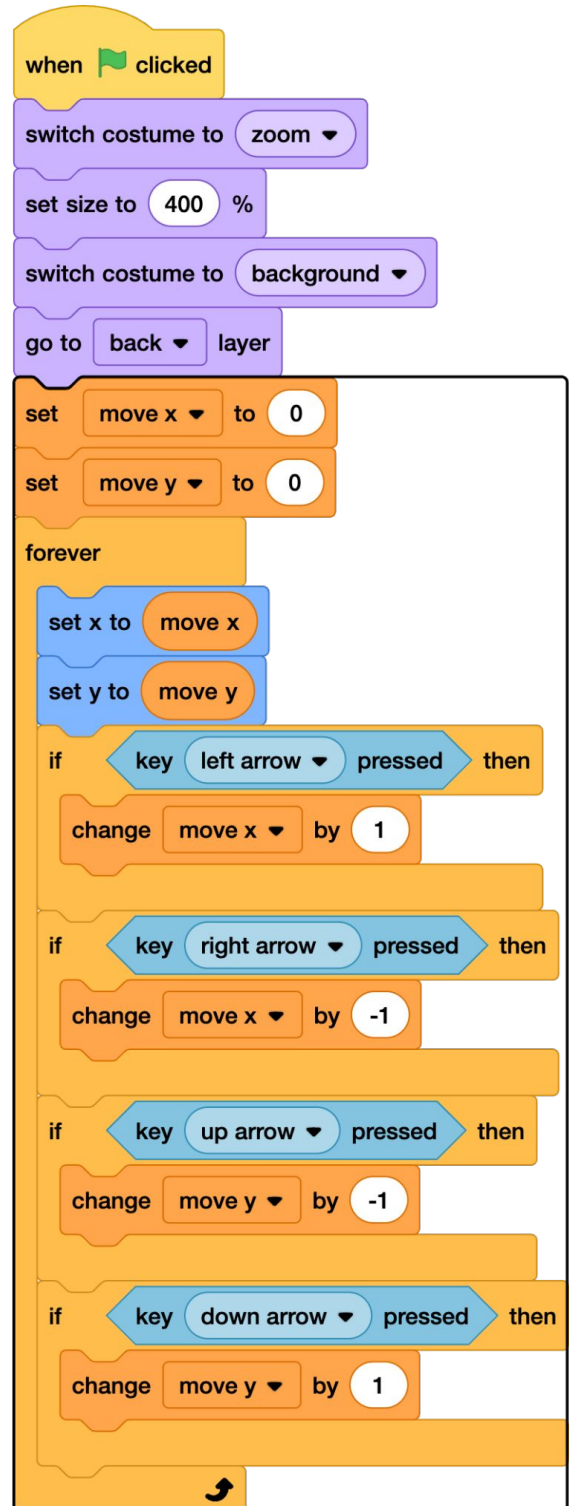
Test it out! If it seems a bit slow, you can increase the move numbers to make it faster.

{code club}

Player sprite (1 of 3)

The player sprite explores the flatgame, checking out the different drawings and textures.
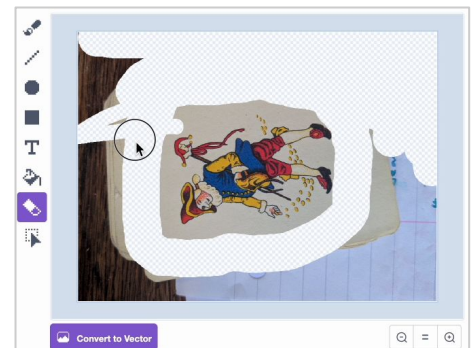

player

1. Upload a new sprite and rename it "player".
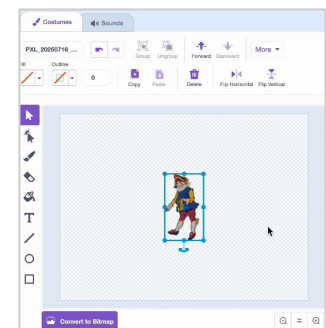
2. Go to the Costumes tab.

   Use the eraser tool to remove any part of the image you don't want.

   This doesn't have to be perfect — flatgames have a cutout collage effect, so it can be roughly done.

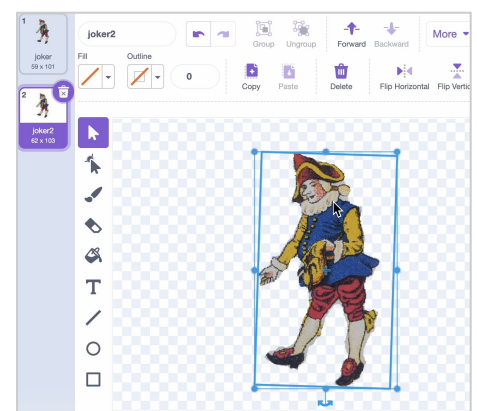3. Use the select tool to resize the sprite to how you want it.

   It should be quite small, so that there's plenty of room on the stage around it.

4. When you have your sprite exactly how you want it, **right-click** and **duplicate** the costume.

   Move and rotate the new costume very slightly.

   This will **animate it** to make it look like it is moving.

{code club}

Player sprite (2 of 3)

player

The player sprite will animate to look like it is moving, but it is actually the background that is moving, which you set up earlier.

5. Add these blocks to the player sprite code:

When the game starts, you want the player sprite to be at the front layer

→

```
when 🏳 clicked
go to  front ▼  layer
forever
    if       key  left arrow ▼  pressed  then
        point in direction  90
        next costume

    if       key  right arrow ▼  pressed  then
        point in direction  -90
        next costume

    if    key  up arrow ▼  pressed  or  key  up arrow ▼  pressed  then
        next costume
```

Next costume animates the player sprite

Direction faces the player sprite in the direction of the arrow keys

→

Up and down keys don't need a direction, so use an operator to make sure the code is the same

→
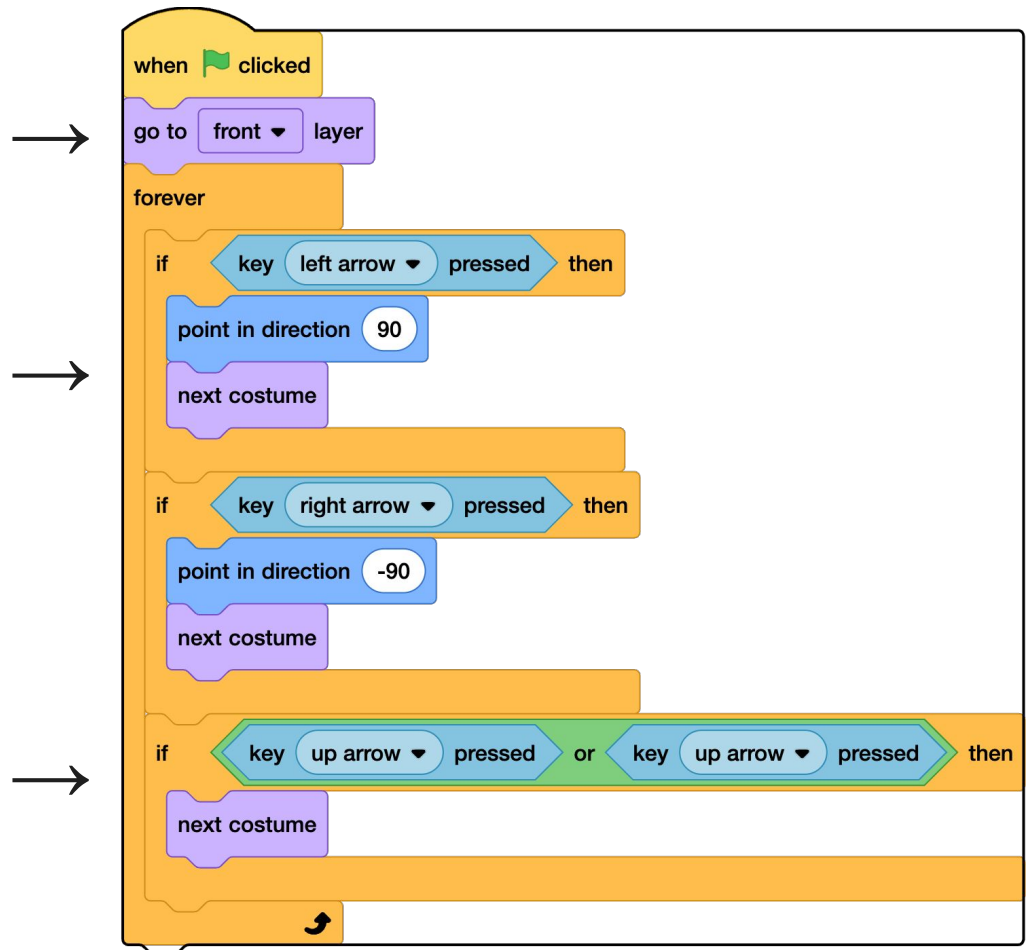
6. Test out a few angles with the direction block until it looks like your player sprite is facing the same way as the arrow.
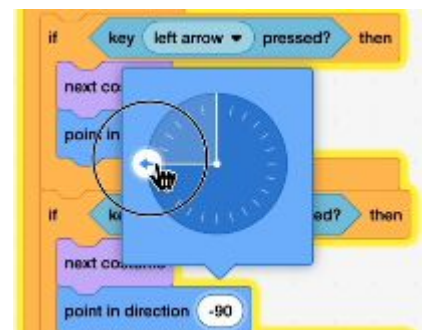
Test your code! Press the green flag and the player sprite should move when you press the arrow keys.

{code club}

Player sprite (3 of 3)

player

Test out the movement and think of a sound that your background might make when the player sprite is walking across it.
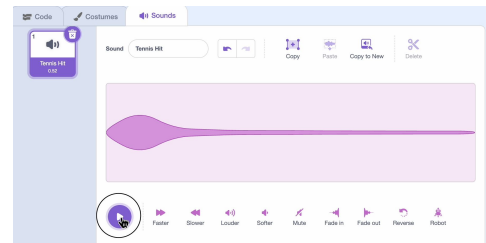
For example, a background of leaves might make a crunching sound.

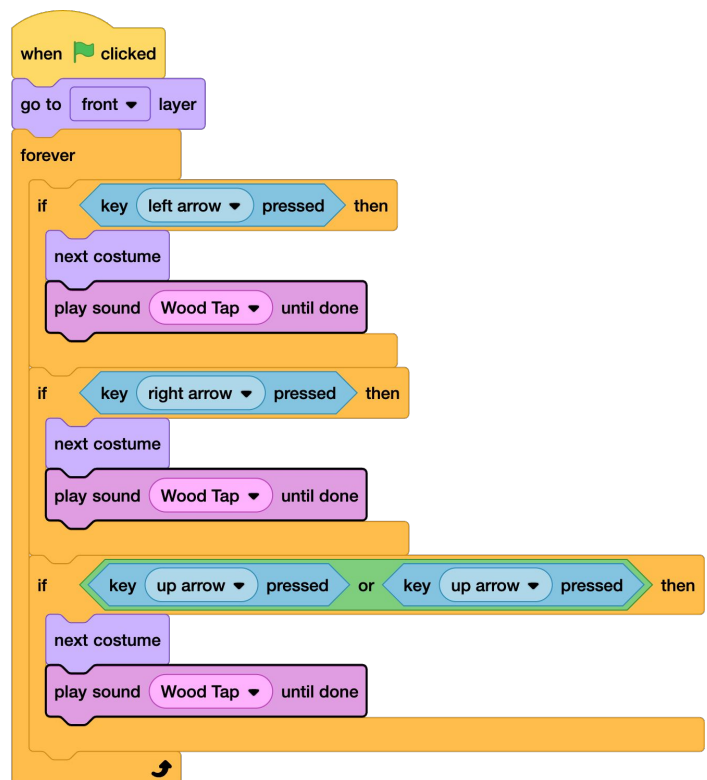7. Open the Sounds tab and click 'Choose a Sound'.

    Hover over the play button to try out sounds until you find one that works for your player sprite.

    Tennis Hit

---
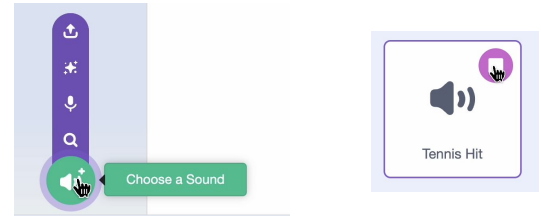
8. Edit the sound to make it softer or faster by clicking the icons in the editor.

---

9. Add these sound blocks to the player code.

    ```
    when [green flag] clicked
    go to [front ▼] layer
    forever
        if < key (left arrow ▼) pressed > then
            next costume
            play sound (Wood Tap ▼) until done
        if < key (right arrow ▼) pressed > then
            next costume
            play sound (Wood Tap ▼) until done
        if < key (up arrow ▼) pressed > or < key (up arrow ▼) pressed > then
            next costume
            play sound (Wood Tap ▼) until done
    ```

Test your code! Press the green flag and the player sprite should move when you use the left and right keys.
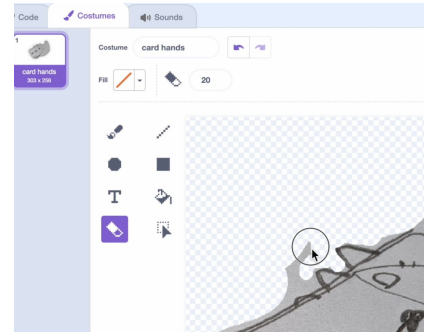
{code club}

Artwork sprite

artwork 1

In this step, you can get creative by adding textures, drawings, text, and any other artwork you want to include in your flatgame.

1. Upload one of your photos as a new sprite and name it "artwork 1".

    Remove any background you don't want.
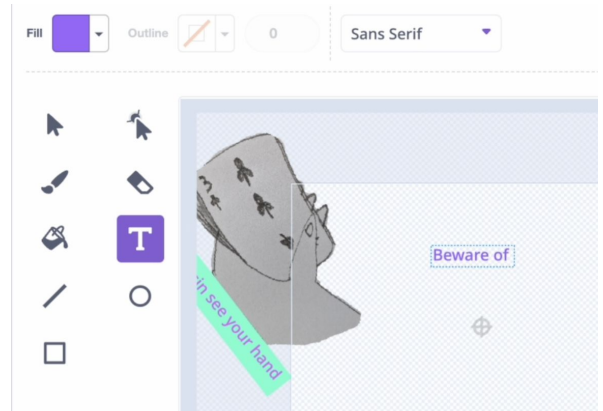
    Convert to vector.

2. Position the sprite and add text.

    Try:

    🖌 Writing a few words about your Code Club
    🖌 Describing the artwork
    🖌 Repeating and overlapping words

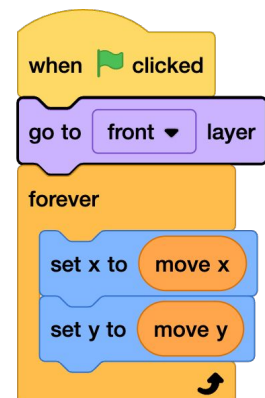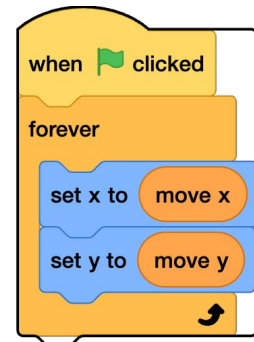   Change the **colours**, **size,** and **position** of the text.

3. Add these set blocks to the artwork sprite code.

    This will move the artwork sprite with the background.

    It can be fun for the player sprite to walk under and over the artwork.

    To do this, add the layer block to the green flag event.

Challenges

Flatgames are a great way to be creative and try new things out with Scratch. Try some of these challenges, and don't worry about making it neat!

Here are some ideas — have a play! What else can you add?

🚀 Add more artwork sprites

Flatgames are great when they're full of art! Upload a new costume and edit it in the same way as the artwork you made earlier.

You can think about where you want to place the new artwork sprites — are they all in a line, or spread out?

🚀 Animate the artwork

You could animate some of the artwork to add movement to the flatgame.

🚀 Add a start screen to your flatgame

Let people know the title of your flatgame and how to play.

{code club}