Felix & Herbert

Introduction

We are going to make a game of catch with **Felix the cat** and Herbert the mouse. You control Herbert with the mouse and try to avoid getting caught by Felix. The longer you avoid him the more points you score, but don't get caught because your score will go down!

✅ **Activity Checklist** - Follow these **Instructions** one by one.

🚩 **Test You Project** - Click on the green flag to **Test** your code.

⏏️ **Save** your work - Click this to **Save** your work.
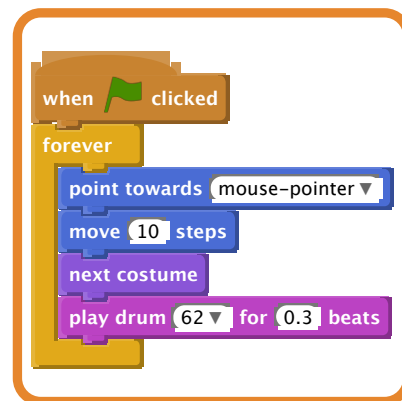
Step1: Felix follows the mouse pointer

✓ **Activity Checklist**

- Start a new project. ⬜
- Click on the stage next to the sprite and switch to the Backgrounds tab, and then import the background indoors/hall. Delete the original blank background. ⬜
- Change the name of the sprite to Felix. ⬜
- Make sure Felix only points left-right by clicking this button: ⬜

↔

- Create this script: ⬜

```
when 🏳 clicked
forever
    point towards mouse-pointer ▼
    move 10 steps
    next costume
    play drum 62 ▼ for 0.3 beats
```

🏳 **Test your project**

- Does Felix follow the mouse pointer? ⬜
- Does it look like he's walking when he moves? ⬜
- Does he move at the right speed? ⬜

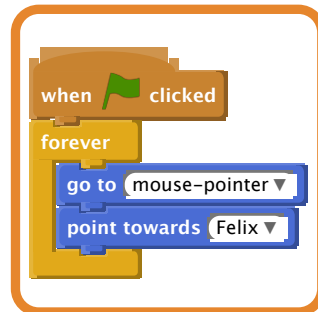⏏ **Save your project**

Step2: Felix chases Herbert

✅ Activity Checklist

Next, we want Felix to chase Herbert the mouse, rather than the mouse pointer.

- Create another sprite using the choose new sprite from file button and selecting animals/mouse1. ⭕
- Change the name of the sprite to Herbert. ⭕
- Edit the costume and make it smaller than Felix. Try six clicks on the shrink button: ⭕

- Make sure Herbert only points left-right. ⭕
- Give Herbert this script: ⭕

```
when [flag] clicked
forever
    go to (mouse-pointer ▼)
    point towards (Felix ▼)
```

🚩 Test your project

- Does Herbert move with the mouse pointer? ⭕
- Does Felix chase Herbert? ⭕
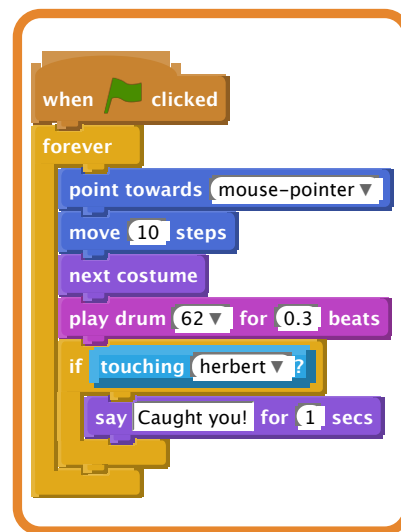
🔺 Save your project

Step3: Felix says when he's caught Herbert

✅ **Activity Checklist**

We want Felix to know when he's caught Herbert, and tell us.

- Change Felix's script to be this: ⭕

```
when 🏳 clicked
forever
    point towards (mouse-pointer ▼)
    move (10) steps
    next costume
    play drum (62 ▼) for (0.3) beats
    if < touching (herbert ▼) ? >
        say [Caught you!] for (1) secs
```

🏳 **Test your project**

- Does Felix say when he's caught Herbert? ⭕
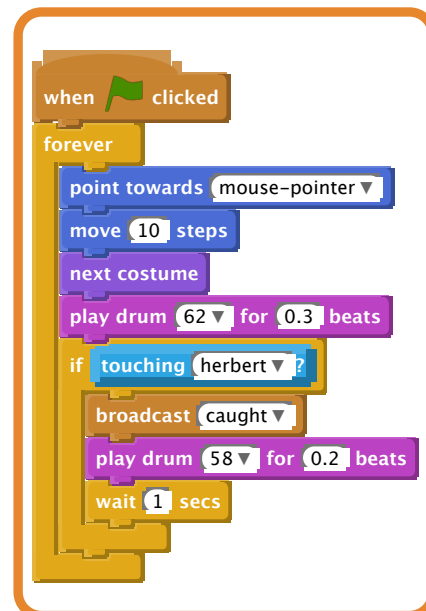
🔺 **Save your project**
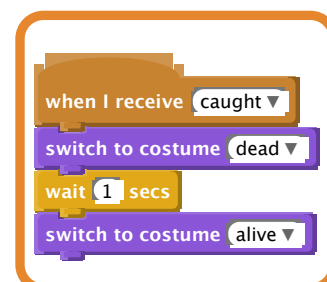
Step4: Herbert turns into a ghost when he's caught

✓ Activity Checklist

Instead of Felix saying something, we want Herbert to turn into a ghost when he's caught.

- Change Felix's script to send this message when he catches Herbert: ◯

```
when 🏳 clicked
forever
    point towards (mouse-pointer ▼)
    move (10) steps
    next costume
    play drum (62 ▼) for (0.3) beats
    if < touching (herbert ▼) ? >
        broadcast (caught ▼)
        play drum (58 ▼) for (0.2) beats
        wait (1) secs
```

- Import a new costume into Herbert from fantasy/ghost2-a. ◯
- Edit the costume to make it smaller. Six clicks on the shrink button should do. ◯
- Change the names of Herbert's costumes so the mouse costume is called 'alive' and the ghost costume is called 'dead'. ◯
- Create a new script for Herbert to turn him into a ghost: ◯

```
when I receive (caught ▼)
switch to costume (dead ▼)
wait (1) secs
switch to costume (alive ▼)
```

🏳 Test your project

- Does Herbert turn into a ghost when he's caught? ◯

- Does Felix play the right sounds at the right time? ◯
- Does Felix still stay still for long enough for Herbert to get away? ◯
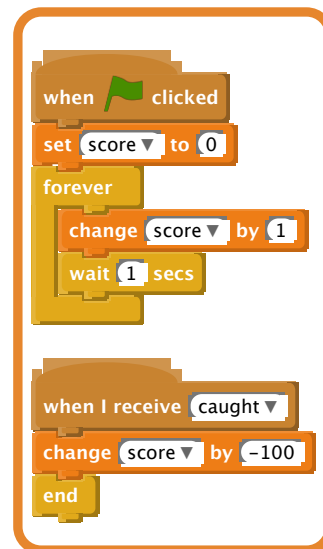

▲ **Save your project**

Step5: Keep Score

✅ Activity Checklist

Let's add a score so we know how well we do at keeping Herbert alive. We'll start the score at zero and increase it by one every second. If Felix catches Herbert, we'll reduce the score by one hundred.

- Make a Variable, for all sprites, called Score. Click on Variables in the top menu, make a variable and name it "score" ⬜
- On the stage, create these two scripts: ⬜

```
when 🚩 clicked
set score ▼ to 0
forever
    change score ▼ by 1
    wait 1 secs

when I receive caught ▼
change score ▼ by -100
end
```

🚩 Test your project

- ○ Does the score go up by one every second? ⬜
- ○ What happens when Herbert is caught before score reaches one hundred? ⬜
- ○ Does the score go back to zero when you start a new game? ⬜

▲ Save your project

Well done you've finished, now you can enjoy the game!
Don't forget you can share your game with all your friends and family by clicking on Share on the menu bar