# Scratch 2

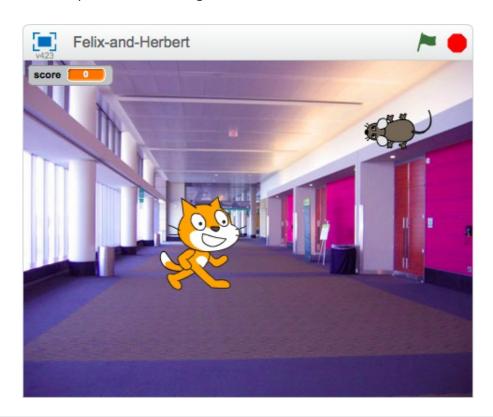
## Felix and Herbert



All Code Clubs <u>must be registered</u>. Registered clubs appear on the map at codeclubworld.org - if your club is not on the map then visit jumpto.cc/18CpLPy to find out what to do.

#### 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 your Project** 

Click on the green flag to TEST your code



#### Step 1: Felix follows the mouse pointer



#### Activity Checklist

1.	Start a new project.			
2.	2. Click on the stage next to the sprite and switch to the			
	Backdrops tab, and then click the Choose Backdrop from			
	library button and choose the backdrop indoors/hall. Delete the			
	original blank backdrop.			
3.	3. Click on the sprite, and then click on the 📋 button to the top			
	left of the Sprite. Change the name of the sprite to Felix.			
4.	Make sure Felix only points left-right by clicking this button:			



5. Create this script:

```
when clicked

forever

point towards mouse-pointer with move 10 steps

next costume

play drum 3v for 0.3 beats
```

#### **I** Test your project

Click the green flag.

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

#### **Step 2: Felix chases Herbert**

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

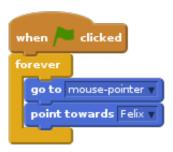
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#### **Activity Checklist**

- 2. Change the name of the sprite to Herbert.
- 3. Switch to the Costumes tab, then click on the costume in the Paint Editor. A box will appear around the costume. Drag a corner of the box to make Herbert smaller than Felix.
- 4. Make sure Herbert only points left-right by clicking this button:



5. Give Herbert this script:



#### Test your project

Click the green flag.

Does Herbert move with the mouse pointer?

Does Felix chase Herbert?

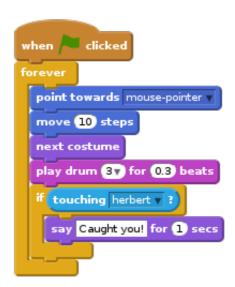


#### Step 3: Felix says when he's caught Herbert

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



1. Change Felix's script to be this:



#### Test your project

Click the green flag.

Does Felix say when he's caught Herbert?



### Step 4: Herbert turns into a ghost when he's caught

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



1. Change Felix's script to send this message when he catches

Herbert:

```
forever

point towards mouse-pointer v
move 10 steps
move 20 steps
next costume
play drum 3 v for 0.3 beats
if touching herbert v ? then
broadcast caught v
play drum 17 v for 0.2 beats
wait 1 secs
```

2.	Add a new costume into Herbert by selecting Herbert, going into			
	the Costumes section, and clicking the Choose costume from			
	Library button . Select the fantasy/ghost2-a costume.			
3.	3. Make the costume smaller by clicking on it in the Paint Editor,			
	and dragging the box that appears, to resize it.			
4.	Change the names of Herbert's costumes so the mouse costume			
	is called 'alive' and the ghost costume is called 'dead'.			
5.	Create a new script for Herbert to turn him into a ahost:			



#### Test your project

Click the green flag.

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?



#### Step 5: Keep score

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.

#### Activity Checklist

- 1. Make a variable, for all sprites, called Score. Click on Data in the top menu, make a variable and name it score, ensuring that "For all sprites" is selected.
- 2. On the stage, create these two scripts:

```
when clicked

set score v to 0

forever

change score v by 1

wait 1 secs

when I receive caught v

change score v by -100
```

#### **I** Test your project

Click the green flag.

Does the score go up by one every second?

Does the score go down by one hundred when Herbert is caught?

What happens when Herbert is caught before score reaches one hundred? Does the score go back to zero when you start a new game?



Well done, you've finished! Now you can enjoy your game!

Don't forget you can share your game with all your friends and family by clicking on Share on the menu bar!