

# **Design a Monster: Movement**





## **Activity Checklist**

As your monster will be made up of lots of sprites you will need to make sure that all sprites **move together at once**. Rather than adding move commands to all your sprites you can simply attach your controls to your body sprite and use **broadcast** to control any other sprite.

When our **Tentacle sprite** (or any other sprite for that matter!) receives a moved right broadcast, we can move it to the right too.

### On a Ghost Body:

```
when right arrow ▼ key pressed

change x by moveSpeed

broadcast moved right ▼

when left arrow ▼ key pressed

change x by moveSpeed * -1

broadcast moved left ▼
```

#### On a Tentacled Body:

```
when I receive moved right ▼

change x by moveSpeed when I receive moved left ▼

change x by moveSpeed * -1
```

Using broadcast also means if we want to change the way our movement commands work, we only have to change one set of scripts. Have a look at this example:

### On a Ghost Body:

```
when left arrow ▼ key pressed
when right arrow ▼ key pressed
change x by
            moveSpeed
                                      change x by
                                                    moveSpeed
point in direction (90 ▼
                                      point in direction -90 ▼
if on edge, bounce
                                      if on edge, bounce
if (not (touching edge ▼ ?
                                         not touching edge ▼ ?
  broadcast moved right ▼
                                         broadcast moved left ▼
  broadcast moved ▼
                                         broadcast moved ▼
```



# **Design a Monster: Movement**



Here we're telling the body to face the direction it is moving (make sure your sprite orientation is set to "only face left-right") and to stop and turn around if it collides with the edge of our screen. You will have also noticed that we have wrapped our broadcast in an if block, we only want the other body parts to move if the body isn't on the edge of the screen.

If you decide to add any animation to the movement, make sure that any associated movements take **just as long**. i.e. if moving a leg to the left takes 1 second due to an animation, all other left movements must take 1 second too (use a wait block to make sure they're all in step).

You can also animate your body sprite using **costume** changes, by triggering the change every time a **movement** broadcast is received.

when I receive moved right ▼
next costume