

Teachers' Guide

Try to explain your students about the coordinate systems in simple words.

The coordinates of the dots are (-240,0) for the blue dot and (240,-180) for the light blue one.

The toothed bar is what turns the rotational motion into linear.

From the gears that mesh you can see that each tooth of the round gear is connected to one tooth of the linear gear.

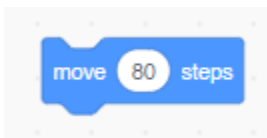
There are similar applications in the sliding doors, elevators for heavy lifts, in driving.

The block "move 50 steps" means the sprite moves 50 pixels.

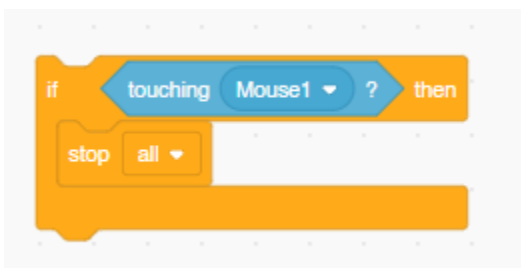
In the cat code, the activation of the motor takes place first and then the cat moves in the screen, whereas in the mouse code, the mouse moves immediately.

Both the cat and the mouse finally hide in the right side of the screen, we need the blocks that reset the sprites in their original position.

A solution where the cat catches the mouse before it hides in the right side of the screen is to increase the number of steps the cat does. For instance,



Also, you can write the code:



After "move 80 steps". Then the motion would stop both in the digital and in the natural world, when the digital "mouse catching" takes place.