Changing a sprite’s position

There are several blocks you can use to change a sprite’s position using coordinates. To find them, click the Motion button beside the Blocks Palette:

- **glide 1 secs to x:0 y:0**: This block makes your sprite glide across the screen to its new position. It travels in a straight line. You can change the x and y coordinates in the block, and change how long the movement takes from 1 second to a value like 0.5 or 0.25 (for a faster glide), or to a bigger number for a slower one.

- **change x by 10**: This block makes your sprite move 10 positions to the right on the Stage. It doesn’t affect its y position, and works independently of which way the sprite is facing. To increase how far the sprite moves, use a bigger number.

- **change x by -10**: To make your sprite move left, change the value in the **change x by** block to a negative number. To make the sprite move further, use a bigger negative number.

- **change y by 10**: This block makes your sprite move 10 positions up the Stage. It doesn’t affect its horizontal position, and also works independently of which way the sprite is facing. Change the 10 to a bigger number for a bigger movement.

- **change y by -10**: Similar to the way you make a sprite move left, you can make a sprite move down the screen by changing the 10 in the **change y by** block to a negative number. For a bigger movement, use a bigger negative number.

- **set x to 0**: This block changes your sprite’s horizontal position to a specific number without affecting its vertical position.

- **set y to 0**: This block changes your sprite’s vertical position to a specific number without affecting its horizontal position.

Scratch 3 adds a new glide block. Use it to glide to a random position, or the mouse-pointer.

If you change the x or y position by too much, you’ll break the illusion of animation. It looks better if you use lots of small movements, rather than one big one.

In your program, any blocks joined underneath the “glide” block won’t start until after the glide has finished. Using time values of more than a second can slow down your program a lot.