

1. Motion Blocks

Motion blocks (**blue**) are used to control **how and where sprites move** on the stage. They let you set a sprite's exact position, make it glide smoothly, rotate, bounce off edges, and more.

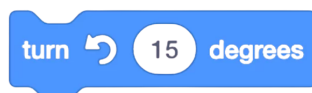
Move [] steps

Moves the sprite forward in the direction it is currently facing. The number sets how many steps (pixels) to move. Use a negative number to move backwards.



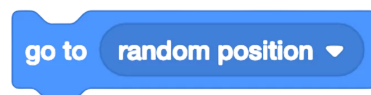
Turn clockwise/anticlockwise [] degrees

Rotates the sprite by a set number of degrees. 360 degrees = one full rotation. You can also turn anticlockwise using the opposite block.



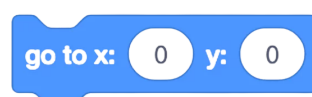
Go to []

Instantly teleports the sprite to a position — either a random spot, another sprite's location, or the mouse pointer.



Go to x: [] y: []

Instantly moves the sprite to a specific coordinate.



Glide [] secs to [position]

Smoothly slides the sprite to a location over a set number of seconds. Unlike 'Go to', the movement is animated – the sprite visibly travels across the screen.

glide 1 secs to random position ▼

glide 1 secs to x: 0 y: 0

Point in direction []

Sets the exact direction the sprite faces. 0 = up, 90 = right, 180 = down, -90 = left.

point in direction 90

Point towards []

Continuously points the sprite towards the mouse pointer or another sprite.

point towards mouse-pointer ▼

Change x by []

Moves the sprite left or right. Positive = right, negative = left. Changing x by 10 every frame creates smooth horizontal movement.

change x by 10

Change y by []

Moves the sprite up or down. Positive = up, negative = down. Used for jumping, falling, and vertical scrolling.

change y by 10

Set x to [] / Set y to []

Snap the sprite to an exact x or y coordinate.

A blue Scratch block with a tab on the left. It contains the text "set x to" followed by a white oval containing the number "0".A blue Scratch block with a tab on the left. It contains the text "set y to" followed by a white oval containing the number "0".**Set rotation style[]**

Controls how the sprite rotates: 'all around' (full rotation), 'left-right' (flips horizontally only – good for characters walking), or 'don't rotate' (always stays upright).

A blue Scratch block with a tab on the left. It contains the text "set rotation style" followed by a dropdown menu showing "left-right" with a downward arrow.**x position / y position**

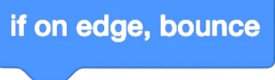
Reporter blocks (oval-shaped) that return the sprite's current x or y coordinate. These can be placed inside other blocks, e.g. to check if a sprite has moved too far.

A blue oval-shaped Scratch reporter block containing the text "x position".A blue oval-shaped Scratch reporter block containing the text "y position".**direction**

Returns the current direction the sprite is facing in degrees.

A blue oval-shaped Scratch reporter block containing the text "direction".**If on edge, bounce**

Checks if the sprite has reached any edge of the stage. If it has, it bounces back in the opposite direction.

A blue Scratch block with a tab on the left. It contains the text "if on edge, bounce".

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