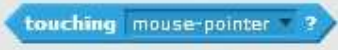


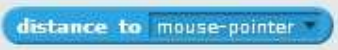
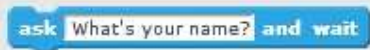





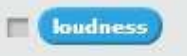





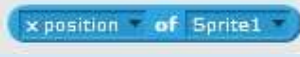





## Sensing Blocks


### (Sensing Sprite Location and Environmental Input)




Sensing blocks determine the location of the mouse-pointer, its distance from other sprites, and whether a sprite is touching another sprite, retrieve and report on the mouse button status and mouse-pointer coordinates, determines when specified keyboard keys have been pressed, provide access to a built-in timer and date. Sensing blocks are coloured sky blue.

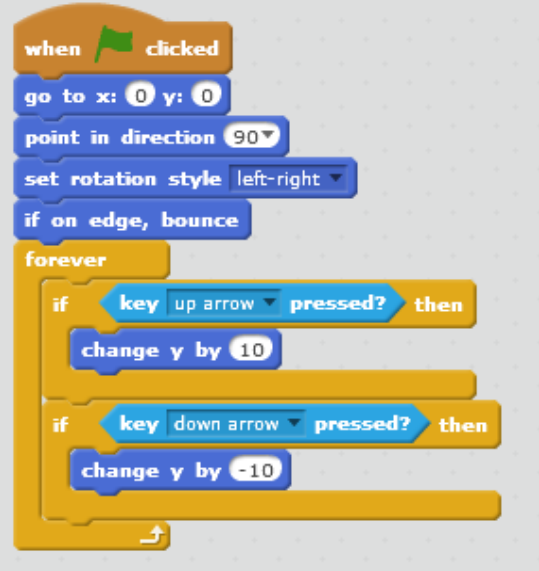
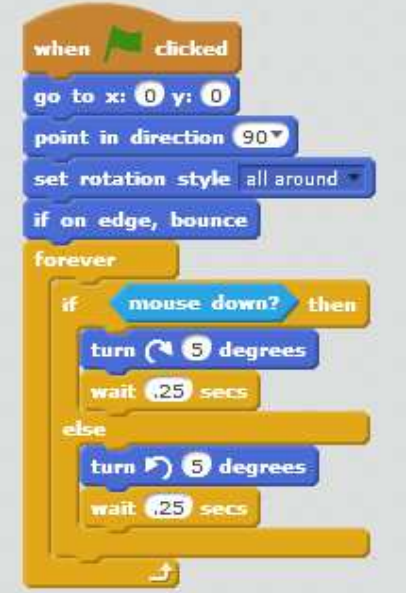
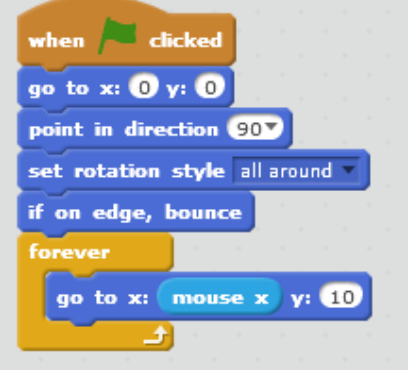
Sensing Block	Description
	Retrieves a Boolean value of true or false, depending on whether the sprite is touching a specified sprite, edge, or mouse-pointer as selected from the block's pull-down menu.
	Retrieves a Boolean value of true or false, depending on whether the sprite is touching a specified colour.
	Retrieves a Boolean value of true or false, depending on whether the first specified colour inside the sprite is touching the second specified colour on the background or on another sprite.
	Retrieves a numeric value representing a sprite's distance from another sprite or from the mouse-pointer.
	With this block, an insert box emerges, you have to enter the value into it, and the value is stored in the answer variable.
	Retrieves an answer variable.
	Retrieves a Boolean value of true or false, depending on whether a specified key is pressed.
	Retrieves a Boolean value of true or false, depending on whether a mouse button is pressed.
	Retrieves the location of the mouse-pointer on the X-axis.
	Retrieves the location of the mouse-pointer on the Y-axis.

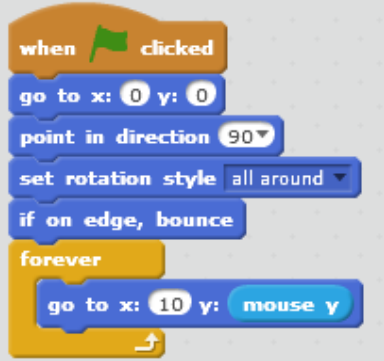
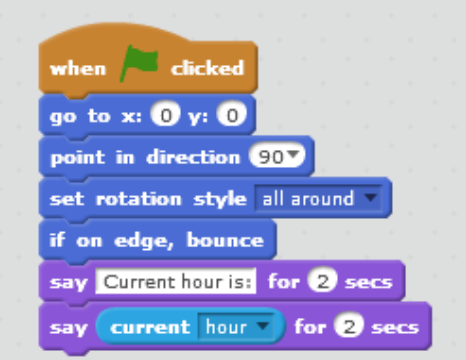

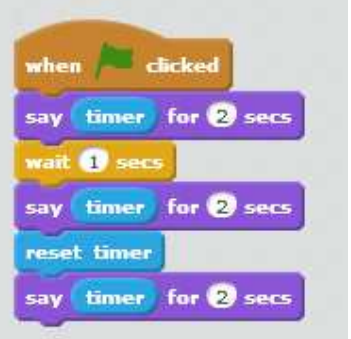
	Retrieves a numeric value, from 1 to 100, representing the volume of the computer's microphone.
	Detects and reports the value of video motion and direction on the sprite.
	Activates the webcam. This block instructs Scratch to turn on the webcam.
	Sets the transparency for the video image displayed on the stage, behind the sprite.
	Retrieves timer value.
	It lets you reset the timer.
	The direction, X position, volume, size, Y position, or costume of a sprite or the Stage.
	The defined time unit selected.
	The no. of days from 2000.
	The name of a Scratch user.

### Sensing Blocks - Activities

Sl. No.	Activity Name	Activity Image
1	Sense-Touching mouse pointer	

2	Sense-Touching Edge	 <p>The code starts with a 'when green flag clicked' block. It then sets the rotation style to 'left-right', goes to x: 0 y: 0, and points in direction 90. The size is set to 100%. A 'forever' loop follows, containing: 'move 15 steps', 'next costume', 'wait 0.2 secs', and an 'if touching edge?' block. The 'if' block has a 'then' clause with a 'turn 180 degrees' block.</p>
3	Sensing distance to mouse pointer.	 <p>The code starts with a 'when green flag clicked' block. It then enters a 'forever' loop with two blocks: 'set size to 100%' and 'change size by distance to mouse-pointer'.</p>
4	Asking Question & Getting Answer.	 <p>The code starts with a 'when green flag clicked' block. It then asks 'What's your name?' and waits. It says 'Hai..' for 2 secs, and then says 'answer' for 2 secs.</p>

5	Sensing Key Pressing.	 <pre> when green flag clicked   go to x: 0 y: 0   point in direction 90   set rotation style left-right   if on edge, bounce   forever loop     if key up arrow pressed? then       change y by 10     if key down arrow pressed? then       change y by -10 </pre>
6	Sensing Mouse down	 <pre> when green flag clicked   go to x: 0 y: 0   point in direction 90   set rotation style all around   if on edge, bounce   forever loop     if mouse down? then       turn 5 degrees       wait .25 secs     else       turn 5 degrees       wait .25 secs </pre>
7	Sensing-Mouse X-variable	 <pre> when green flag clicked   go to x: 0 y: 0   point in direction 90   set rotation style all around   if on edge, bounce   forever loop     go to x: mouse x y: 10 </pre>

8	Sensing-Mouse Y-variable	 <pre> when green flag clicked   go to x: 0 y: 0   point in direction 90   set rotation style all around   if on edge, bounce   forever loop     go to x: 10 y: mouse y </pre>
9	Current Time	 <pre> when green flag clicked   go to x: 0 y: 0   point in direction 90   set rotation style all around   if on edge, bounce   say Current hour is: for 2 secs   say current hour for 2 secs </pre>
10	Retrieving - Timer Variable	 <pre> when green flag clicked   say timer for 2 secs   wait 1 secs   say timer for 2 secs   forever loop     say timer for 1 secs </pre>
11	Resetting Timer	 <pre> when green flag clicked   say timer for 2 secs   wait 1 secs   say timer for 2 secs   reset timer   say timer for 2 secs </pre>

12	Retrieving- Sprite position, direction, size, volume etc....	 <p>The image shows a Scratch script starting with a 'when green flag clicked' event block. This is followed by a 'forever' loop block. Inside the loop, there are two action blocks: 'move 10 steps' and 'say x position of Sprite1 for 2 secs'. The 'say' block has a dropdown menu set to 'x position' and another dropdown set to 'Sprite1'.</p>
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