I SENSE A DISTURBANCE IN THE FUNCTIONS

SENSING Functions

Sensors are devices that are used to detect information about its surroundings. They send new information 60 times every second. For example, the distance to an incoming object may be 4.9, then 4.7, and 4.5 after that, and so on.

(HINT: For this reason, it may be a good idea to use comparisons (< and >) rather than equalities (== and !=) when comparing sensor values)

We can use pre-made functions to read the latest values of these sensors in our code. We can then use the values of these sensors to determine the appropriate action for the character to take.

Distance()

This function retrieves the latest value of the “distance to next obstacle” sensor. It could be used to detect the distance between the character and the next obstacle.

(HINT: To get an idea of scale, the characters are 1 unit in width)

Speed()

This function retrieves the latest value of the “speed of the next obstacle” sensor. It could be used to detect how fast the next obstacle is approaching.

(HINT: Obstacle speeds in the Create step are all 8 units per second)

Height()

This function retrieves the latest value of the “height of the next obstacle” sensor. It could be used to detect the height (top to bottom) of the next obstacle that is approaching the character.

(HINT: The characters are 1.7 units in height)

Width()

This function retrieves the latest value of the “width of the next obstacle” sensor. It could be used to detect how wide (left side to right side) the next obstacle that is approaching the character is.

(HINT: The characters are 1 unit in width)

Elevation()

This function retrieves the latest value of the “elevation of the next obstacle” sensor. It could be used to detect the distance from the ground to the CENTRE of the next obstacle.

(HINT: Remember that the characters are 1.7 units in height)
(BONUS HINT: The characters become 1 unit in height when crouching)