Useful Blocks in Snap!

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This guide contains a list of blocks that are less-known but still extremely useful in solving lab problems. Blocks are divided by Snap! section. Each section and block also contains a brief description.

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Control

These are blocks that control the logic behind what your script will do (very important).

Runs whatever code is within the loop fast.

Repeats the code within the loop until the predicate imputed after the “until” returns False.

Based upon the inserted predicate returns either the value after “then” or “else”.

Pauses all running scripts, same as the pause button above the stage. This block may come in handy when debugging code!

Stops either all or some scripts depending upon the choice made from the down arrow list.

Operators

These are blocks that are useful for working with numbers, words, and true/false values.

This block reports true if the input is a given type. You can use the drop-down menu to change which type you would like to check.

This block picks a random number from the first input to the second input.

Unicode reports the Unicode value of a letter. Letters and other characters are represented inside the computer using a numeric code called Unicode.

This block performs a mathematical function on the input. You can use the drop-down menu to see the extensive list of functions that can be applied.

Join can take in multiple inputs and combine them by the spaces (represented by the dots in the inputs) to report one combined sentence.

Mod reports the remainder resulting from the division of the first input by the second input.

Round gives the rounded value of a number (turns a decimal into the nearest whole number).

Variables and Lists

These are blocks for creating and modifying variables and lists

Creates variables that are local to a single script

Sets a variable to a given value

Changes a variable by a given value (e.g. the above adds 1 to a variable)

Displays a variable on the stage

Removes a variable from being displayed on a stage

Gives the length of a list

Returns the item at the first (or any inputted number) position of the list

Returns the position of an item in the list If there are multiple of the same item, it returns the position of the first one

Returns whether or not a list contains an item

Returns whether or not a list is empty (has 0 slots, which is not the same as having 1+ empty slots)

Joins two lists together

Inserts an item at a specified position in the list

Motion

These are blocks that change the position of the sprite and affect its x/y coordinates or direction

Moves the sprite to the x and y coordinates inputted into the block.

Changes the x-coordinate to the input.

Changes the x-coordinate by adding the inputted amount to the current x-coordinate.

Looks

These are blocks that change how the sprite looks and can show the sprite communicating with a dialogue bubble

Hide makes the sprite disappear from the stage, while show makes the sprite reappear.

Sensing

These blocks to track what the user is doing (e.g. ask user a question, find mouse coordinates on stage, see if a key is pressed)

These two blocks are used together generally. You can use the ask block to ask a question and store the user's reply in the 'answer' block to be used further in the program.

You can use this block with multiple options (instead of 'space' any key from the drop down menu) to check if the key is being used and perform a certain action.

You can use this block with multiple options (instead of 'edge' any key from the drop down menu) to check if the sprite is in contact with the 'edge' and use it to implement the necessary conditions or maybe end the program as per your need.

Sound

Blocks from this category are typically not used in most coding scenarios. These affect the pitch, volume, and speed of sounds.

Pen

Blocks from this category are typically not used in most coding scenarios. They are used to draw on the stage.