

SPEECH RECOGNITION

View online: <https://www.construct.net/en/make-games/manuals/construct-3/plugin-reference/speech-recognition>

The **Speech recognition** object can transcribe text from the audio of the user talking in to a microphone.

Speech recognition may not be supported by all browsers or platforms. Use the *Supports speech recognition* condition to check if speech synthesis can be used.

Starting speech recognition requires access to the user's microphone, which normally requires a permission prompt for security reasons. To avoid annoying the user, the permission prompt may also only be allowed to start in a user input trigger, such as On button clicked or On touch started.

Scripting

This object has no script interface, because when using JavaScript or TypeScript coding you can use the browser built-in [Web Speech API](#).

Speech recognition conditions

Is recognising speech

True if a speech recognition request has been approved, and speech input through a microphone is actively being recognised.

On end

Triggered after the *Stop speech recognition* action, or after the user stops speaking in *Single phrase* mode speech recognition.

On error

Triggered if there is an error approving speech recognition, or during speech recognition. The *SpeechError* expression is set to a string which describes the type of problem, e.g. "not-allowed" if permission was declined.

On result

Triggered during active speech recognition when the interim or final transcript has changed. Use either the *FinalTranscript* and/or the *InterimTranscript* expressions to get the updated

result.

On start

Triggered after *Request speech recognition* when the user has also approved any prompt for permission.

Supports speech recognition

True if the current browser or platform supports speech recognition. If false, none of the speech recognition features of the object will work.

Speech recognition actions

Request speech recognition

If *Supports speech recognition* is true, initiates speech recognition. Usually a permission prompt will appear asking the user if they want to allow the page to use their microphone input. The user must approve the permission prompt before *On start* triggers. If there is a problem or permission is denied, *On error* is triggered.

Language specifies the spoken language to recognize, as an IETF language tag. Use a tag like *en* for English, *en-US* for US English, *en-GB* for British English, and so on.

Mode can be *continuous*, which keeps recognising speech until the page is closed or the *Stop speech recognition* is used; or *single phrase*, which recognises speech until the user stops talking, then automatically stops speech recognition and triggers *On end*.

Results can be *Interim* to allow interim (unconfirmed) results which can change, accessed by the *InterimTranscript* expression; or *Final* to only allow confirmed final results of speech recognition to be returned which will not change, accessed by the *FinalTranscript* expression.

Stop speech recognition

If speech recognition is currently active, ends the speech recognition. *On end* will trigger.

Speech recognition expressions

FinalTranscript

If speech recognition is active, returns the final transcript of confirmed results. This does not change, other than to add newly spoken words which have also been confirmed.

InterimTranscript

If speech recognition is active, returns the interim transcript of results. The *Request speech recognition* action must have specified *Interim* for the *Results* parameter. The text of this expression can change, as the speech recognition engine uses the sound input in real-time to refine the results and correct any misinterpreted words. Once the user has spoken far

enough for the speech recognition engine to be confident of a final result, the word will disappear from *InterimTranscript* and be appended to *FinalTranscript*.

SpeechError

In *On speech recognition error*, contains a string which identifies the type of error. Possible values are: "no-speech" , "aborted" , "audio-capture" , "network" , "not-allowed" , "service-not-allowed" , "bad-grammar" , or "language-not-supported" . The most common errors are "not-allowed" if the user declined the permission prompt; "audio-capture" if no microphone is present; or "network" if the speech recognition is implemented by a remote server over the Internet which is currently unavailable.