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# 1. Speech recognition

Listening to speech is located on the SI node and is done with a Python script. The script is published at the Github location: [https://github.com/Windesheim-Willy/speech\\_recognition/blob/master/start\\_recognition.py](https://github.com/Windesheim-Willy/speech_recognition/blob/master/start_recognition.py) . Two essential services are used:

- Speech recognition (speech to text conversion) of Google through the use the module `speech_recognition`
- Fuzzy logic search option through the use of the module `fuzzywuzzy`

# 2. Flow

The general flow in the script is as follows:

- The necessary modules are imported

- The hit ratio used for fuzzy logic resemblance is set
- Two topics are set for publishing
- Speech is captured through the microphone
- Speech is transferred to Google for translation in clear text in Dutch
- Text is published on topic /interaction/clear\_text
- Text is compared with fuzzy logic to keywords, when hit the number 1 is published on topic /interaction/is\_active