Phone Booth Installation

Technical Writeup

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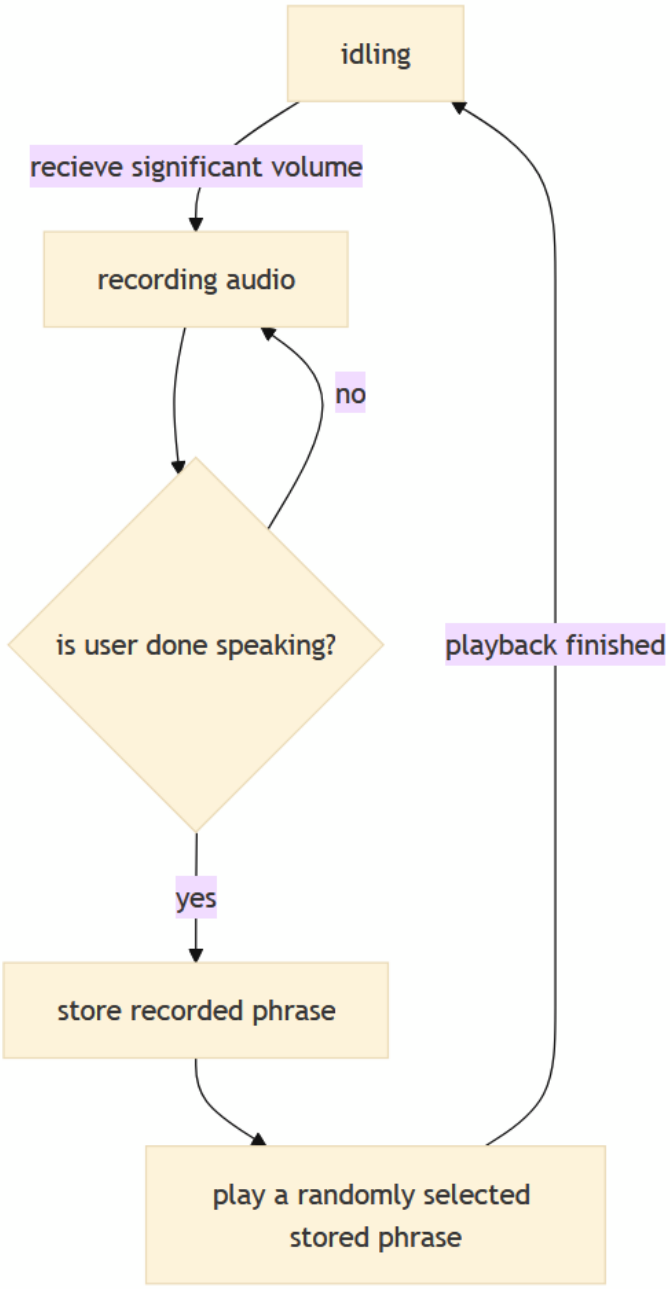
For the Phone Booth installation, a bit of technical complexity was required in order to ensure that a user's interaction with the piece feels seamless and conversational.

Some simple code was implemented on a Raspberry Pi computer which was further embedded into the body of an old phone. The flowchart below depicts the basic interaction that the device accomplishes.



As depicted in the flowchart, the program responsible for recording and playback starts in an idle state. This means that it is waiting for significant volume from the user signifying the start of a spoken phrase.

To determine whether the person interacting with the piece is speaking or not, the ambient volume of the installation space while no one was talking was recorded. If the volume of spoken audio exceeds this ambient threshold by a significant degree, the program begins recording the spoken phrase.

Likewise, when the volume of incoming audio matches this ambient room volume for several consecutive seconds, the user is assumed to have finished speaking and the audio “phrase” is stored to the device.

To create a conversational feel, the program will playback a random phrase previously stored on the device to the user through the phone handset. Once the playback is completed, the program reverts back to the idle state and waits for further input.