

ID : M-1

Title : Take audio input

Description : Microphone provides audio input to detect noise

Actor : Microphone

Preconditions : Microphone is working correctly

Postconditions : Microphone provides audio input to the model

ID : M-2

Title : Preprocess audio

Description : Extract MFCC features

Actor : Model

Preconditions : Model is working properly

Postconditions : The audio is preprocessed

ID : M-3

Title : Detect Noise

Description : Detect noise using the trained model

Actor : Model

Preconditions : The audio is preprocessed

Postconditions : Audio is checked to see if there is any noise detected

ID : M-4

Title : Save Detected Noise

Description : Save detected noise

Actor : Model

Preconditions : Noise is detected

Postconditions : The saved noise is then sent to be formatted in the SOS message

ID : U-1

Title : Add/Modify SOS contacts

Description : User is provided an option to add or modify contacts.

Actor : User

Preconditions : Software has the rights to access contacts

Postconditions : SOS contacts are added

ID : U-2

Title : Detect location

Description : GPS detects the current location after the model identifies a noise

Actor : GPS

Preconditions : Noise is detected

Postconditions : Current location is tracked and provided in the SOS message

