<< File: sound_detection_test_implementation.py **>>**

SoundDetectionTest

+ node_name:str
+ rospack:rospkg.RosPack
+ unit_test_package_path:str
+ config:dict
+ sample_rate:int
+ save_dir:str
+ record_filtered:bool
+ record_unfiltered:bool
+ record_duration:int
+ verbose_mode:bool
+ save_direction_data:bool
+ target_rms:float
+ apply_normalization:bool
+ status_timer:float
+ filtered_lock:Lock
+ unfiltered_lock:Lock
+ direction_lock:Lock
+ filtered_audio_buffer:list
+ is_recording_filtered:bool
+ filtered_recording_start_time:float
+ unfiltered_audio_buffer:list
+ is_recording_unfiltered:bool
+ unfiltered_recording_start_time:float
+ direction_file:file
+ direction_file_path:str
+ direction_start_time:float
+ microphone_topic:str
+ filtered_sub:rospy.Subscriber
+ unfiltered_sub:rospy.Subscriber
+ direction_sub:rospy.Subscriber

+ __init__():void
+ read_json_file():dict
+ extract_topics(topic_key:str):str
+ normalize_rms(audio_data:np.ndarray, target_rms:float, min_rms:float):np.ndarray
+ init_direction_file():void
+ filtered_audio_callback(msg:Float32MultiArray):void
+ unfiltered_audio_callback(msg:sound_detection_test_microphone_msg_file):void
+ direction_callback(msg:Float32):void
+ save_filtered_audio():void
+ save_unfiltered_audio():void
+ shutdown_hook():void