Made with
Visual Paradigm
For non-commercial use

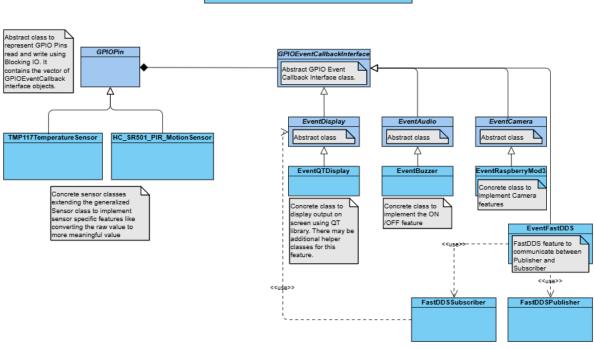**SmartMonitoringAndSafety System**

This is the main() program/controller. It will initiate three threads, two for Temperature sensors and one for PIR motion sensor. It will contain objects of concrete classes.

Abstract class to represent GPIO Pins read and write using Blocking IO. It contains the vector of GPIOEventCallback interface objects.

GPIOPin

GPIOEventCallbackInterface

Abstract GPIO Event Callback Interface class.

TMP117TemperatureSensor

HC_SR501_PIR_MotionSensor

Concrete sensor classes extending the generalized Sensor class to implement sensor specific features like converting the raw value to more meaningful value

EventDisplay

Abstract class

EventAudio

Abstract class

EventCamera

Abstract class

EventQTDisplay

Concrete class to display output on screen using QT library. There may be additional helper classes for this feature.

EventBuzzer

Concrete class to implement the ON /OFF feature

EventRaspberryMod3

Concrete class to implement Camera features

EventFastDDS

FastDDS feature to communicate between Publisher and Subscriber

<<use>>

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FastDDSSubscriber

FastDDSPublisher