# Document Name:

**DOOR\_SENSOR\_MODULE\_SWS\_V01**

# Functionality:

* Initializing the pins direction at which each of the door sensors will be connected at
* Reading the status of the sensors

# Configuration Parameters:

1. Sensor Channel Pins

Defining the pins at which the sensors will be connected at

#define CH0 0

#define CH1 1

1. Sensor Channel Port

Defining the Port at which the sensor will be connected at

#define SENSOR\_CH0\_PORT 'A'

#define SENSOR\_CH1\_PORT 'A'

1. Sensor Channel Pin

Defining the Port at which the sensor will be connected at

#define SENSOR\_CH0\_PIN 0

#define SENSOR\_CH1\_PIN 1

1. Sensor Channel Mode

Defining the mode of the pin connected to sensor whether it’s output or Input

#define SENSOR\_CH0\_MODE 0

#define SENSOR\_CH1\_MODE 0

# API’s:

1-

|  |  |
| --- | --- |
| **API Prototype** | ERROR\_STATUS DoorSensor\_Init(u8 Sensor\_channel); |
| **Description** | This API is responsible Initializing the pins direction at which each of the door sensors will be connected at using an API from the GPIO Module called: GPIO\_Init(SENSOR\_CH0\_PORT,SENSOR\_CH0\_PIN,SENSOR\_CH0\_MODE); |
| **Input Parameters** | U8 Sesnor\_channel {CH0 = 0, CH1 =1} |
| **Output Parameters** | Error\_S {OK = 1, NOK = 0} |

2-

|  |  |
| --- | --- |
| **API Prototype** | ERROR\_STATUS DoorSensor\_ReadStatus (u8 Sensor\_Ch ,u8\* Status); |
| **Description** | This API is responsible Reading the status of the sensors using an API from the GPIO module called: GPIO\_ReadPin(SENSOR\_CH0\_PORT,SENSOR\_CH0\_PIN,&Status); |
| **Input Parameters** | 1. U8 Sesnor\_channel {CH0 = 0, CH1 =1} 2. U8 \*Status {Pointer to a variable at which the status of the sensors will be stored} |
| **Output Parameters** | 1. Error\_S {OK = 1, NOK = 0} |