



# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page

Modules

Data Structures

Files

## Modules

Here is a list of all modules:

[detail level 1 2 3]

▼ MIDDLEWARES

  ▼ OSX\_MOTION\_GR

[OSX\\_MOTION\\_GR\\_Exported\\_Types](#)

[OSX\\_MOTION\\_GR\\_Exported\\_Functions](#)

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# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page

Modules

Data Structures

Files

Modules

## MIDDLEWARES

## Modules

---

**OSX\_MOTION\_GR**

---

## Detailed Description

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# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page

Modules

Data Structures

Files

Modules

## OSX\_MOTION\_GR

MIDDLEWARES

## Modules

---

[\*\*OSX\\_MOTION\\_GR\\_Exported\\_Types\*\*](#)

---

[\*\*OSX\\_MOTION\\_GR\\_Exported\\_Functions\*\*](#)

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## Detailed Description

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# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page

Modules

Data Structures

Files

[Data Structures](#) | [Enumerations](#)

## OSX\_MOTION\_GR\_Exported\_Types

[MIDDLEWARES](#) » [OSX\\_MOTION\\_GR](#)

## Data Structures

---

```
struct osx_MGR_input_t
```

---

## Enumerations

---

```
enum osx_MGR_output_t { OSX_MGR_NOGESTURE = 0x00,  
                        OSX_MGR_PICKUP = 0x01, OSX_MGR_GLANCE = 0x02,  
                        OSX_MGR_WAKEUP = 0x03 }
```

---

## Detailed Description

---

### Enumeration Type Documentation

---

#### **enum osx\_MGR\_output\_t**

Enumerator
OSX_MGR_NOGESTURE
OSX_MGR_PICKUP
OSX_MGR_GLANCE
OSX_MGR_WAKEUP

Definition at line **76** of file **osx\_motion\_gr.h**.

---



# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page	Modules	Data Structures	Files
Data Structures	Data Structure Index	Data Fields	Data Fields
<b>osx_MGR_input_t</b> <b>Struct Reference</b>			

MIDDLEWARES » OSX\_MOTION\_GR »  
OSX\_MOTION\_GR\_Exported\_Types

```
#include <osx_motion_gr.h>
```

## Data Fields

---

float **AccX**

float **AccY**

float **AccZ**

---

## Detailed Description

---

Definition at line **68** of file **osx\_motion\_gr.h**.

# Field Documentation

---

## **float AccX**

---

Definition at line [70](#) of file [osx\\_motion\\_gr.h](#).

## **float AccY**

---

Definition at line [71](#) of file [osx\\_motion\\_gr.h](#).

## **float AccZ**

---

Definition at line [72](#) of file [osx\\_motion\\_gr.h](#).

---

The documentation for this struct was generated from the following file:

- Middlewares/ST/STM32\_OSX\_MotionGR\_Library/Inc/[osx\\_motion\\_](#)
- 

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# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page

Modules

Data Structures

Files

Functions

## **OSX\_MOTION\_GR\_Exported\_Functions**

[MIDDLEWARES](#) » [OSX\\_MOTION\\_GR](#)

## Functions

---

uint8\_t **osx\_MotionGR\_Initialize** (void)  
Initialize the MotionGR engine. [More...](#)

void **osx\_MotionGR\_SetOrientation\_Acc** (const  
char \*acc\_orientation)  
Set the MotionGR Accelerometer data  
orientation. [More...](#)

**osx\_MGR\_output\_t** **osx\_MotionGR\_Update** (**osx\_MGR\_input\_t**  
\*data\_in)  
Run Gesture Recognition Algorithm. [More...](#)

uint8\_t **osx\_MotionGR\_GetLibVersion** (char \*version)  
Get the library version. [More...](#)

---

## Detailed Description

---

### Function Documentation

---

**uint8\_t osx\_MotionGR\_GetLibVersion ( char \* **version** )**

---

Get the library version.

#### Parameters

**version** pointer to an array of 35 char

#### Return values

**Number** of characters in the version string

**uint8\_t osx\_MotionGR\_Initialize ( void )**

---

Initialize the MotionGR engine.

#### Parameters

**None**

#### Return values

**1** in case of success, 0 otherwise

**void  
osx\_MotionGR\_SetOrientation\_Acc ( const char \* **acc\_orientation****

---

Set the MotionGR Accelerometer data orientation.

#### Parameters

**\*acc\_orientation** reference system of the Accelerometer raw data  
(for instance: south west up became "swu",  
north east up became "ned")

## Return values

**None**

---

**osx\_MGR\_output\_t**  
**osx\_MotionGR\_Update**      ( **osx\_MGR\_input\_t \* data\_in** )

---

Run Gesture Recognition Algorithm.

## Parameters

**data\_in** pointer to the **osx\_MGR\_input\_t** structure

## Return values

**gesture index**



# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page	Modules	Data Structures	Files
Data Structures	Data Structure Index	Data Fields	

## Data Structures

Here are the data structures with brief descriptions:

[!\[\]\(8290a0da7deb95092be3bf85b3086057\_img.jpg\) osx\\_MGR\\_input\\_t](#)

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# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page	Modules	Data Structures	Files
Data Structures	Data Structure Index	Data Fields	

## Data Structure Index

O

o

[osx\\_MGR\\_input\\_t](#)

O

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# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page	Modules	Data Structures	Files
Data Structures	Data Structure Index	Data Fields	
All	Variables		

Here is a list of all struct and union fields with links to the structures/unions they belong to:

- AccX : [osx\\_MGR\\_input\\_t](#)
- AccY : [osx\\_MGR\\_input\\_t](#)
- AccZ : [osx\\_MGR\\_input\\_t](#)

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# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page	Modules	Data Structures	Files
Data Structures	Data Structure Index	Data Fields	
All	Variables		

- AccX : [osx\\_MGR\\_input\\_t](#)
- AccY : [osx\\_MGR\\_input\\_t](#)
- AccZ : [osx\\_MGR\\_input\\_t](#)



# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page	Modules	Data Structures	Files
File List	Globals		

## File List

Here is a list of all files with brief descriptions:

[detail level [1](#) [2](#) [3](#) [4](#) [5](#)]

Middlewares	
ST	
STM32_OSX_MotionGR_Library	
Inc	
<a href="#">osx_motion_gr.h</a>	Header for osx_motion_gr module

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# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page

Modules

Data Structures

Files

Middlewares

## Middlewares Directory Reference

## Directories

---

directory **ST**

---

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# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page

Modules

Data Structures

Files

Middlewares

ST

## ST Directory Reference

## Directories

---

directory **STM32 OSX MotionGR Library**

---

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# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page

Modules

Data Structures

Files

Middlewares

ST

STM32\_OSX\_MotionGR\_Library

## STM32\_OSX\_MotionGR\_Library Directory Reference

# Directories

---

directory **Inc**

---

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# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page

Modules

Data Structures

Files

Middlewares

ST

STM32\_OSX\_MotionGR\_Library

Inc

## Inc Directory Reference

## Files

---

file [\*\*osx\\_motion\\_gr.h\*\*](#) [code]

Header for osx\_motion\_gr module.

---

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# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page

Modules

Data Structures

Files

File List

Globals

Middlewares > ST > STM32 OSX MotionGR Library > Inc >

[Data Structures](#) | [Enumerations](#) | [Functions](#)

## osx\_motion\_gr.h File Reference

Header for osx\_motion\_gr module. [More...](#)

#include "stdint.h"

[Go to the source code of this file.](#)

## Data Structures

---

```
struct osx_MGR_input_t
```

---

## Enumerations

---

```
enum osx_MGR_output_t { OSX_MGR_NOGESTURE = 0x00,  
                        OSX_MGR_PICKUP = 0x01, OSX_MGR_GLANCE = 0x02,  
                        OSX_MGR_WAKEUP = 0x03 }
```

---

## Functions

---

uint8\_t **osx\_MotionGR\_Initialize** (void)  
Initialize the MotionGR engine. [More...](#)

void **osx\_MotionGR\_SetOrientation\_Acc** (const  
char \*acc\_orientation)  
Set the MotionGR Accelerometer data  
orientation. [More...](#)

**osx\_MGR\_output\_t** **osx\_MotionGR\_Update** (**osx\_MGR\_input\_t**  
\*data\_in)  
Run Gesture Recognition Algorithm. [More...](#)

uint8\_t **osx\_MotionGR\_GetLibVersion** (char \*version)  
Get the library version. [More...](#)

---

## Detailed Description

---

Header for osx\_motion\_gr module.

**Author**

Central Lab

**Version**

V1.0.0

**Date**

29-January-2016

**Attention**

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Definition in file [osx\\_motion\\_gr.h](#).

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# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page	Modules	Data Structures	Files	
File List	Globals			
All	Functions	Enumerations	Enumerator	

Here is a list of all functions, variables, defines, enums, and typedefs with links to the files they belong to:

- OSX\_MGR\_GLANCE : [osx\\_motion\\_gr.h](#)
- OSX\_MGR\_NOGESTURE : [osx\\_motion\\_gr.h](#)
- osx\_MGR\_output\_t : [osx\\_motion\\_gr.h](#)
- OSX\_MGR\_PICKUP : [osx\\_motion\\_gr.h](#)
- OSX\_MGR\_WAKEUP : [osx\\_motion\\_gr.h](#)
- osx\_MotionGR\_GetLibVersion() : [osx\\_motion\\_gr.h](#)
- osx\_MotionGR\_Initialize() : [osx\\_motion\\_gr.h](#)
- osx\_MotionGR\_SetOrientation\_Acc() : [osx\\_motion\\_gr.h](#)
- osx\_MotionGR\_Update() : [osx\\_motion\\_gr.h](#)

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# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page	Modules	Data Structures	Files
File List	Globals		
All	Functions	Enumerations	Enumerator

- `osx_MotionGR_GetLibVersion()` : [osx\\_motion\\_gr.h](#)
- `osx_MotionGR_Initialize()` : [osx\\_motion\\_gr.h](#)
- `osx_MotionGR_SetOrientation_Acc()` : [osx\\_motion\\_gr.h](#)
- `osx_MotionGR_Update()` : [osx\\_motion\\_gr.h](#)

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# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page	Modules	Data Structures	Files
File List	Globals		
All	Functions	Enumerations	Enumerator

- `osx_MGR_output_t` : [osx\\_motion\\_gr.h](#)

---

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# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page	Modules	Data Structures	Files
File List	Globals		
All	Functions	Enumerations	Enumerator

- OSX\_MGR\_GLANCE : [osx\\_motion\\_gr.h](#)
- OSX\_MGR\_NOGESTURE : [osx\\_motion\\_gr.h](#)
- OSX\_MGR\_PICKUP : [osx\\_motion\\_gr.h](#)
- OSX\_MGR\_WAKEUP : [osx\\_motion\\_gr.h](#)

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# osxMotionGR Software Library

osxMotionGR Software Library  
Documentation

Main Page

Modules

Data Structures

Files

File List

Globals

Middlewares > ST > STM32\_OSX\_MotionGR\_Library > Inc >

## osx\_motion\_gr.h

Go to the documentation of this file.

```
1
44 /* Define to prevent recursive inclusion ---
   *-----*/
45 #ifndef _OSX_MOTION_GR_H_
46 #define _OSX_MOTION_GR_H_
47
48 #ifdef __cplusplus
49 extern "C" {
50 #endif
51
52 /* Includes -----
   *-----*/
53 #include "stdint.h"
54
63 /* Exported types -----
   *-----*/
67 /* Exported types -----
   *-----*/
68 typedef struct
69 {
70     float AccX;           /* acc x axes [g]
   */
```

```
71 |     float AccY;           /* acc y axes [g]
 * /
72 |     float AccZ;           /* acc z axes [g]
 * /
73 | } osx_MGR_input_t;
74 |
75 |
76 | typedef enum
77 | {
78 |     OSX_MGR_NOGESTURE      = 0x00,
79 |     OSX_MGR_PICKUP         = 0x01,
80 |     OSX_MGR_GLANCE         = 0x02,
81 |     OSX_MGR_WAKEUP         = 0x03
82 | } osx_MGR_output_t;
83 |
84 |
89 | /* Exported constants -----
----- */
90 | /* Exported variables -----
----- */
91 | /* Exported macro -----
----- */
95 | /* Exported functions -----
----- */
96 |
102| uint8_t  osx_MotionGR_Initialize(void);
103|
104|
110| void osx_MotionGR_SetOrientation_Acc(const
111|   char *acc_orientation);
112|
118| osx_MGR_output_t
119|   osx_MotionGR_Update(osx_MGR_input_t *data_in);
125|   uint8_t osx_MotionGR_GetLibVersion(char
126|   *version);
```

```
126  
127  
140 #ifdef __cplusplus  
141 }  
142 #endif  
143  
144 #endif /* _OSX_MOTION_GR_H_ */  
145  
146 /***** (C) COPYRIGHT  
STMicroelectronics *****END OF FILE****/
```