



DMP Electronics Inc.

8F, No 12, Wu-Quan 7 Rd., Wu Gu Industrial Park  
Wu Gu Xiang, Taipei 248, Taiwan R.O.C.  
TEL: 886 2 2298 0770 FAX: 886 2 2293 2335

# RoBoard Module RM-G185

## Manual V1.01

### The Heart of Robotics

Aug 2012  
DMP Electronics Inc

ROBOARD

## ◆ Copyright

The information in this manual is subject to change without notice for continuous improvement in the product. All rights are reserved. The manufacturer assumes no responsibility for any inaccuracies that may be contained in this document. And makes no commitment to update or to keep current the information contained in this manual.

No part of this manual may be reproduced, copied, translated or transmitted, in whole or in part, in any form or by any means without the prior written permission of the DMP Electronics Inc.

©Copyright 2012 DMP Electronics Inc.  
Manual No. RM-G185-01 Ver.1.01 ◆ Aug, 2012

## ◆ Trademarks Acknowledgment

Other brand names or product names appearing in this document are the properties and registered trademarks of their respective owners. All names mentioned herewith are served for identification purpose only.



## TableOfContents

Chapter 1.....	4
Introduction.....	4
1.1 Packing List.....	4
1.2 Product Description.....	5
1.4 I <sup>2</sup> C Address .....	7
1.5 Board Dimension .....	8
Chapter 2.....	9
Installation.....	9
2.1 Board Outline.....	9
2.2 Connectors & Jumpers Summary .....	100
2.3 Pin Assignments.....	111
J1: I <sup>2</sup> C connector (Top).....	111
J2: I <sup>2</sup> C connector (Bottom).....	111
Chapter 3.....	122
Development Note .....	122
Sample and development code.....	123

# Chapter 1

## Introduction

### 1.1 Packing List

Product Name	Package
RM-G146	RoBoard Module RM-G185
	
Cable-RM-1	1x6 pin Cable x 1
	

## 1.2 Product Description

The RoBoard Module RM-G185 is fully integrated Humidity and Temperature and Pressure module, combines Humidity and Temperature sensor with the SHT21 and Pressure sensor with the LPS331AP, simply and all done through I2C interface, the dimension of it is wee as 20 x 20 mm.

- Temperature range: -40°C to 125°C
- Temp. accuracy: +/- 0.3 °C
- Temp. Repeatability: +/- 0.1 °C
- Humidity range : 0 to 100 %RH
- Humi. accuracy: +/- 2.0 %RH
- Humi. repeatability: +/- 0.1 %RH
- 260 mPa to 126 kPa absolute pressure
- 20 cm resolution of barometer

### 1.3 Specifications

	RM-G185 Humidity, Temperature and Pressure sensor module
Humidity/Temperature sensor	SHT21
Pressure	LPS331AP
Interface	I <sup>2</sup> C
Connectors	1.25mm 6-pin wafer for I <sup>2</sup> C x 2
Power Input	DC-in 5V
Dimension	20mm X 20mm
Weight	2.5g

## 1.4 I<sup>2</sup>C Address

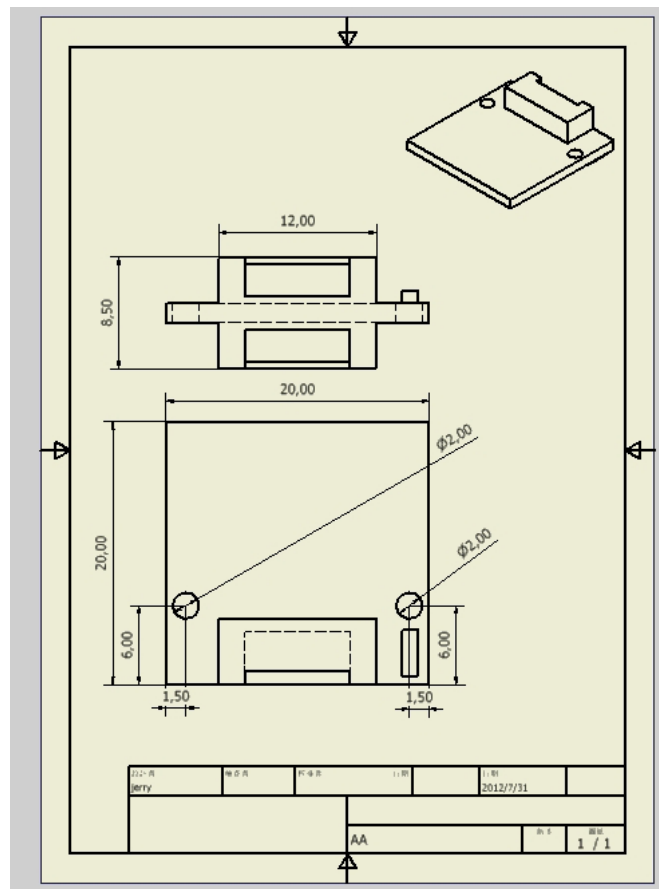
Humidity / Temperature sensor (SHT21)

- Default Write : 0xBA
- Default Read : 0xBB

Pressure sensor (LPS331AP)

- Default Write : 0x80
- Default Read : 0x81

## 1.5 Board Dimension

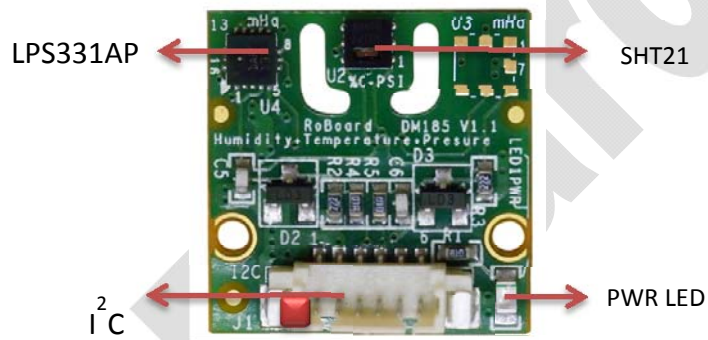




# Chapter 2

## Installation

### 2.1 Board Outline



## 2.2 Connectors & Jumpers Summary

Summary Table			
	Description	Type of Connections	Pin
J1	I <sup>2</sup> C connector (Top)	Wafer, 2.54mm,6x1	6-pin
J2	I <sup>2</sup> C connector (Bottom)	Wafer, 2.54mm,6x1	6-pin

## 2.3 Pin Assignments

### J1: I<sup>2</sup>C connector (Top)

Pin #	Signal Name
1	Vcc (Red)
2	GND (Black)
3	SCL (Blue)
4	SDA (Green)
5	X (White)
6	X (Orange)

### J2: I<sup>2</sup>C connector (Bottom)

Pin #	Signal Name
1	Vcc (Red)
2	GND (Black)
3	SCL (Blue)
4	SDA (Green)
5	X (White)
6	X (Orange)

# Chapter 3

## Development Note

### Sample and development code

The RM-G185 provides sample and development code.  
Please download from official website: <http://www.roboard.com>

## Warranty

This product is warranted to be in good working order for a period of one year from the date of purchase. Should this product fail to be in good working order at any time during this period, we will, at our option, replace or repair it at no additional charge except as set forth in the following terms. This warranty does not apply to products damaged by misuse, modifications, accident or disaster. Vendor assumes no liability for any damages, lost profits, lost savings or any other incidental or consequential damage resulting from the use, misuse of, originality to use this product. Vendor will not be liable for any claim made by any other related party. Return authorization must be obtained from the vendor before returned merchandise will be accepted. Authorization can be obtained by calling or faxing the vendor and requesting a Return Merchandise Authorization (RMA) number. Returned goods should always be accompanied by a clear problem description.