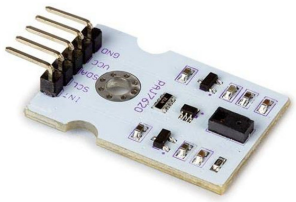

WHADDA WPSE358 Gesture Recognition Sensor Module Instruction Manual

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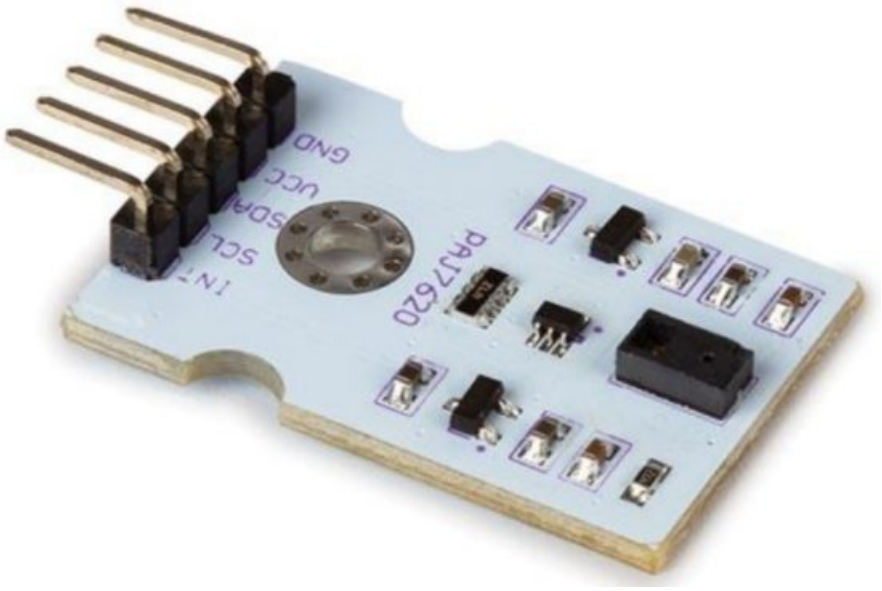
EXCITING ELECTRONICS

WPSE358 Gesture Recognition Sensor Module
Instruction Manual



Contents

Introduction

To all residents of the European Union

Important environmental information about this product
This symbol on the device or the package indicates that disposal of the device after its lifecycle could harm the environment. Do not dispose of the unit (or batteries) as unsorted municipal waste; it should be taken to a specialized company for recycling. This device should be returned to your distributor or to a local recycling service. Respect the local environmental rules.
If in doubt, contact your local waste disposal authorities.

Thank you for choosing Whadda! Please read the manual thoroughly before bringing this device into service. If the device was damaged in transit, do not install or use it and contact your dealer.

Safety Instructions


Read and understand this manual and all safety signs before using this appliance.


For indoor use only.

- This device can be used by children aged from 8 years and above, and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning the use of the device in a safe way understand the hazards involved. Children shall not play with the device. Cleaning and user maintenance shall not be made by children without supervision.

General Guidelines

- Refer to the Velleman® Service and Quality Warranty on the last pages of this manual.
- All modifications of the device are forbidden for safety reasons. Damage caused by user modifications to the device is not covered by the warranty.
- Only use the device for its intended purpose. Using the device in an unauthorized way will void the warranty.
- Damage caused by disregard of certain guidelines in this manual is not covered by the warranty and the dealer will not accept responsibility for any ensuing defects or problems.

- Nor Velleman nv nor its dealers can be held responsible for any damage (extraordinary, incidental, or indirect) – of any nature (financial, physical…) arising from the possession, use, or failure of this product.
- Keep this manual for future reference.

What is Arduino®

Arduino® is an open-source prototyping platform based on easy-to-use hardware and software. Arduino ® boards are able to read inputs – light-on sensor, a finger on a button, or a Twitter message – and turn it into an output – activating a motor, turning on an LED, publishing something online. You can tell your board what to do by sending a set of instructions to the microcontroller on the board. To do so, you use the Arduino programming language (based on Wiring) and the Arduino® software IDE (based on Processing). Additional shields/modules/components are required for reading a Twitter message or publishing online. Surf to **www.arduino.cc** for more information

Product overview

This sensor is able to detect 9 distinct gestures like up, down, forward, backward, rotating, … to use as an input for your project. Check out all gesture possibilities in the features below. The module interfaces to your development board (e.g. Arduino® compatible board) using I²C and is able to detect and report various gestures including moving up, down, left, right, forward, backward, rotating clockwise, and anti-clockwise, and waving.

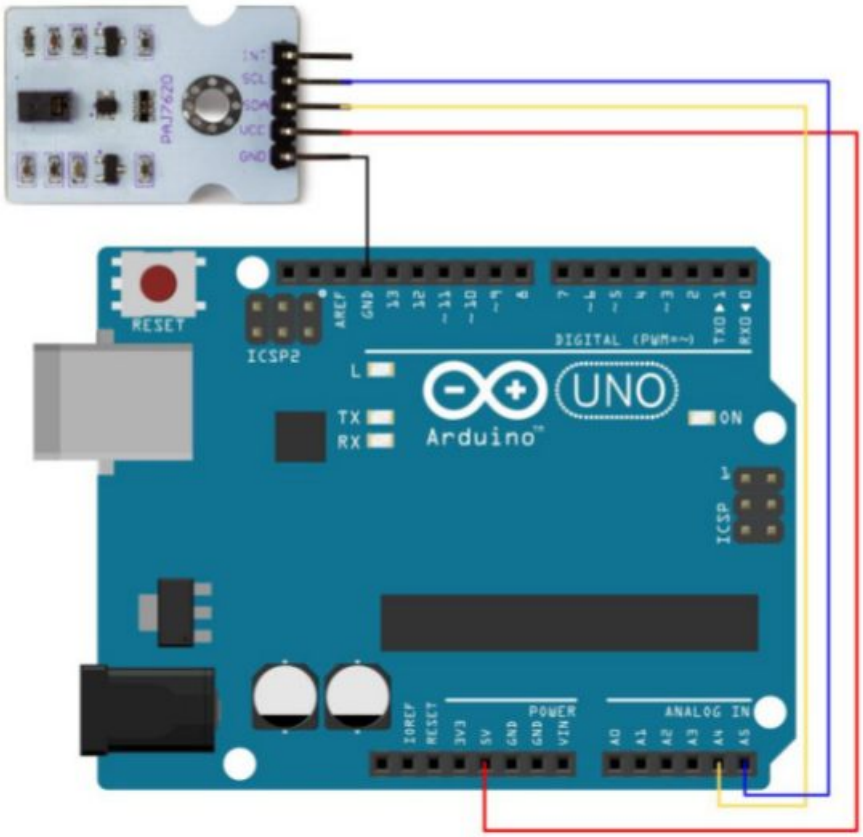
The module has a normal and game mode that can read your gestures at a different speed. The detection distance is 10 cm and the ambient light immunity is <100k lux. This module has a 12C interface that is easy to interface with microcontroller boards.

Specifications:

Supply voltage: 5 V DC
Working current: 50 mA
Max. power: 0.5 W
Detection distance: 10 cm max.
Gesture speed: 60 °/s – 600 °/s (in normal mode), 60 °/s – 1200 °/s (in game mode)
Ambient light immunity: < 100k lux
I²C communication speed: max. 400 kbit/s
Working temperature range: -25 – +65 °C
Interface connector: standard 5-pin pin header
Dimensions (W x L x H): 35,5 x 20,1 x 7 mm

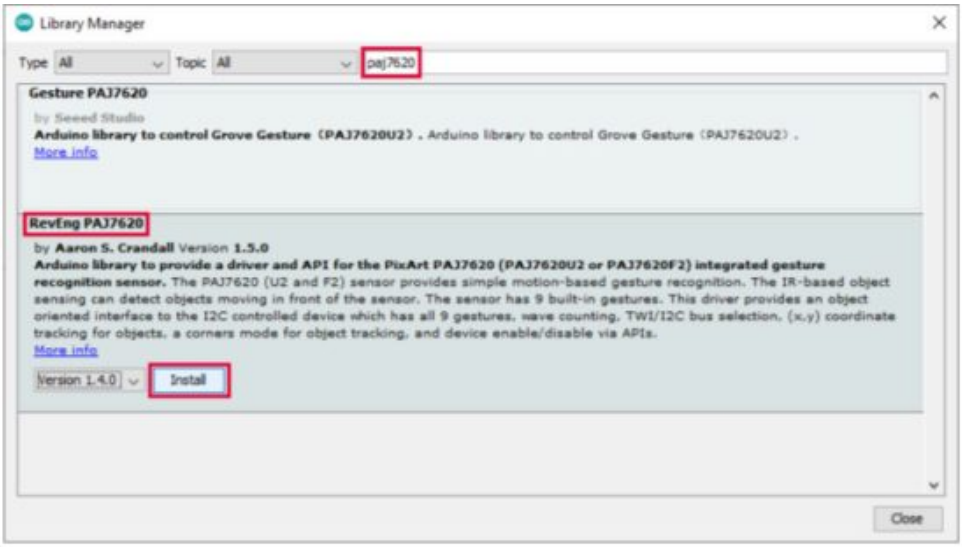
Wiring description

Pin	Name	Arduino® connection
GND	Ground	GND
VCC	Supply voltage (5 V DC)	5V
SDA	I²C data line	I²C SDA (A4 on Arduino® Uno compatible)
SCL	I²C clock line	I²C SCL (A5 on Arduino® Uno compatible)
Pin	**Name**	**Arduino® connection**

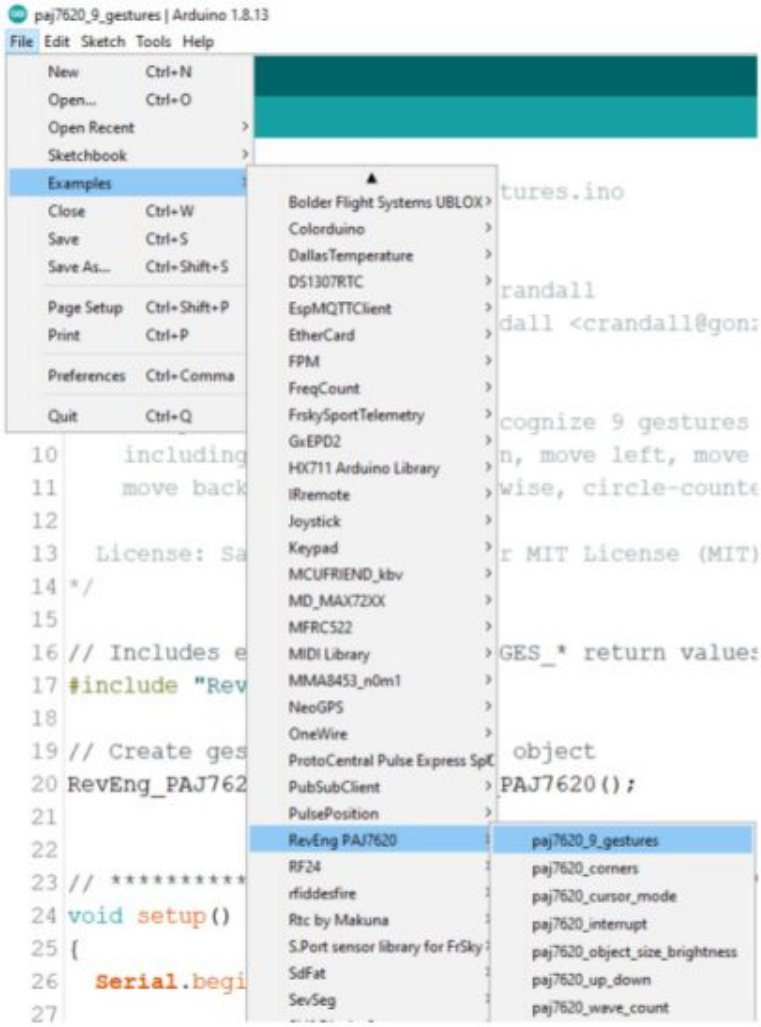


Example program

1. Use the **Arduino Library manager** to install the **RevEng PAJ7620** library, by going to Sketch > Include Library > Manage Libraries…, typing in **paj7620** in the search bar, selecting the correct library, and click “ **Install**”:



2. Open the **paj7620_9_gestures** example sketch from the library you installed by going to **File > Examples > RevEng PAJ7629 > paj7620_9_gestures**



3. Connect your Arduino compatible board, make sure the correct Board and connection port are set in the tools menu and hit Upload 
4. Open the serial monitor by clicking the serial monitor button  , make sure the baud rate is set at **115200 baud**. Try some gestures out in front of the sensor and they should appear on the serial monitor!

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Documents / Resources

	WHADDA WPSE358 Gesture Recognition Sensor Module [pdf] Instruction Manual WPSE358 Gesture Recognition Sensor Module, WPSE358, Gesture Recognition Sensor Module

References

- Whadda - Exciting Electronics
- Arduino - Home