WHADDA

EXCITING ELECTRONICS

MANUAL

# **EN** DIGITAL SPEAKER MODULE

WPM457

whadda.com

# 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 and 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 unauthorised 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 of 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

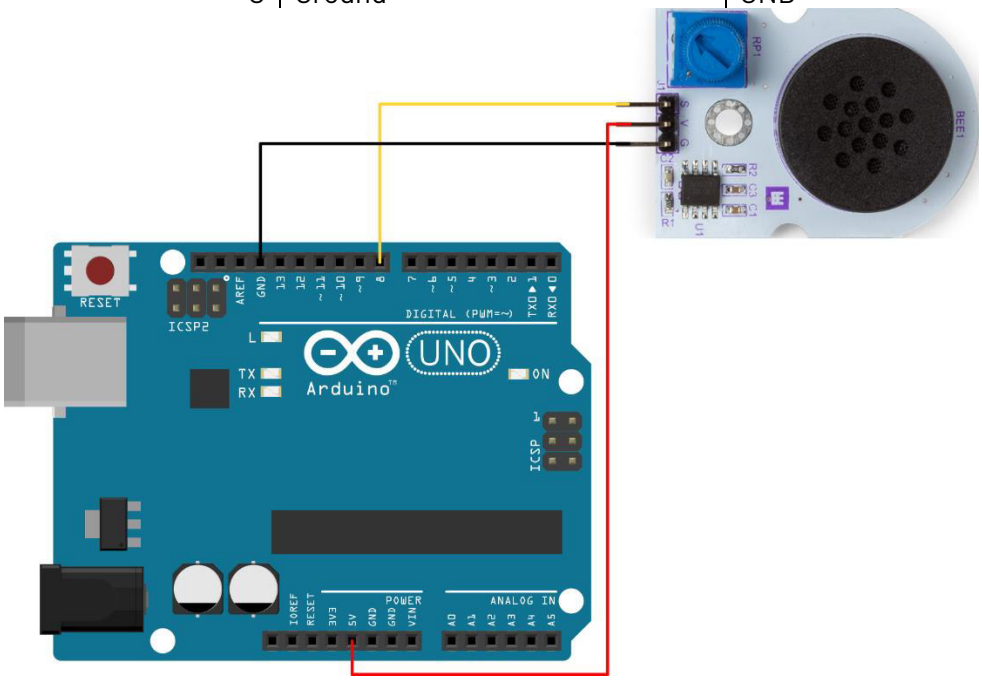
The Whadda digital speaker module integrates an adjustable volume potentiometer, a speaker, a 2W audio amplifier chip and a 3pin header interface. It can easily amplify small audio signals by providing a max. 8.5 times amplification and play the amplified signal through the speaker.

## Specifications:

Supply voltage: 5 V DC
Operating current Max. 500 mA
Maximum power: 2 W
Max. speaker volume: 80 dB
Amplifier chip: SC8002B
Weight: 8.4 g
Dimensions (W x L x H): 47 x 30 x 13 mm

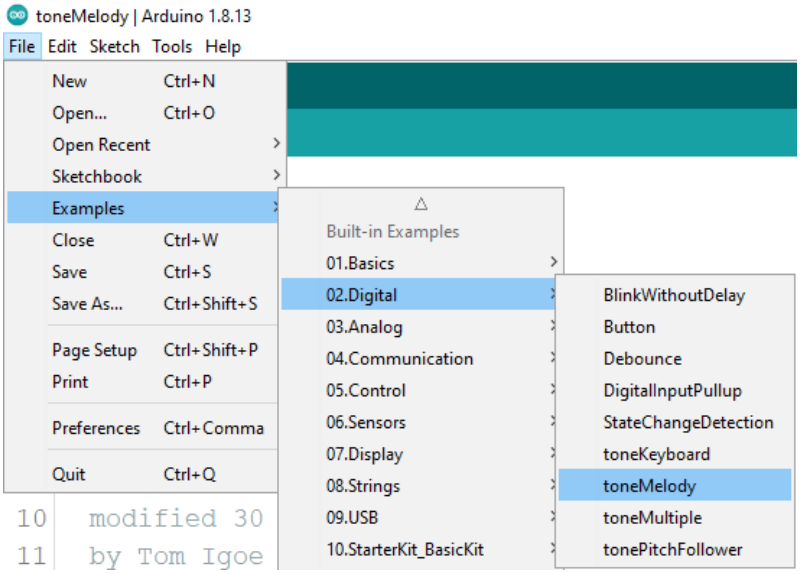
## Wiring description

| Pin | Name | Arduino® connection |
|---|---|---|
| S | Audio signal input | Digital Pin (e.g. D8) |
| V | Supply voltage (5 V DC) | 5V |
| G | Ground | GND |



## Example program

1. Open the built-in example toneMelody in the Arduino IDE by going to **File > Examples > 02. Digital > toneMelody**




2. Connect your Arduino compatible board, make sure the correct Board and connection port are set in the tools menu, and hit Upload

Your speaker module should now play a recognizable tune. If you don't hear anything, try turning the volume potentiometer, and check your connections.

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