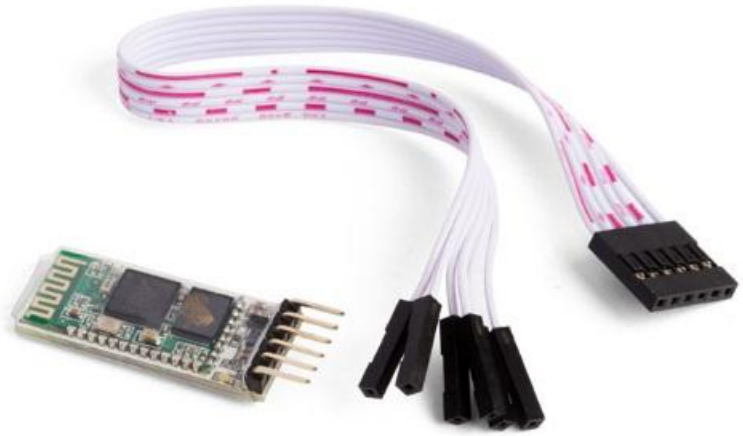
# VMA302

## BLUETOOTH HC-05 TRANSMISSION MODULE



USER MANUAL

# USER MANUAL

## 1. 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 Velleman®! 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.

## 2. Safety Instructions

- 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.

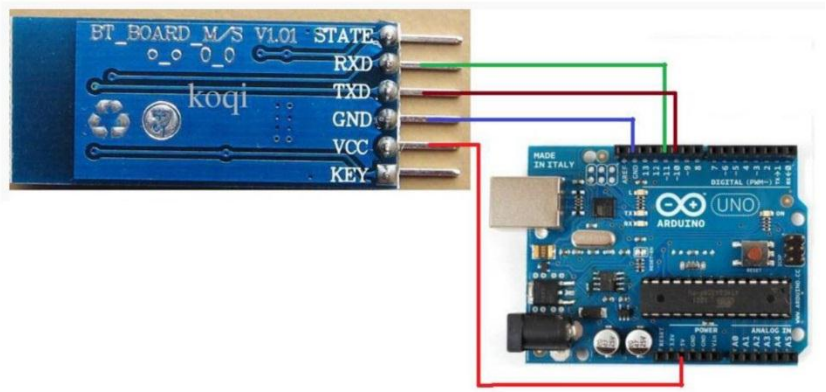
- Indoor use only.
  Keep away from rain, moisture, splashing and dripping liquids.

## 3. General Guidelines

- Refer to the Velleman® Service and Quality Warranty on the last pages of this manual.
- Familiarise yourself with the functions of the device before actually using it.
- 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.
- Due to constant product improvements, the actual product appearance might differ from the shown images.
- Product images are for illustrative purposes only.
- Do not switch the device on immediately after it has been exposed to changes in temperature. Protect the device against damage by leaving it switched off until it has reached room temperature.
- Keep this manual for future reference.

# 4. Overview

This module allows you to integrate a microcontroller into a Bluetooth® network.




| Arduino® | | VMA302 |
|---|---|---|
| 5 V | ▶ | VCC |
| GND | ▶ | GND |
| D11 | ▶ | Rx |
| D10 | ▶ | Tx |

**Pin Layout**

| | |
|---|---|
| KEY | if brought high before power is applied, forces AT Command Setup Mode; blinks slowly (2 seconds) |
| VCC | power supply |
| GND | ground |
| TXD | transmit serial data |
| RXD | receive serial data |
| STATE | tells if connected or not |

frequency ..... 2.45 GHz
asynchronous speed.....max. 2.1 Mbps
security ..... authentication
profile ..... Bluetooth Serial Port
power supply.....+3.3 VDC
working temperature..... max. 60 °C

# 5. Programming Code

*Code begin:*

```
// This program shown how to control arduino from PC Via Bluetooth
// Connect ...
// arduino>>bluetooth
// D11   >>>  Rx
// D10   >>>  Tx


// you will need arduino 1.0.1 or higher to run this sketch

#include <SoftwareSerial.h>// import the serial library

SoftwareSerial Genotronex(10, 11); // RX, TX
int ledpin=13; // led on D13 will show blink on / off
int BluetoothData; // the data given from Computer

void setup() {
  // put your setup code here, to run once:
  Genotronex.begin(9600);
  Genotronex.println("Bluetooth On please press 1 or 0 blink LED ..");
  pinMode(ledpin,OUTPUT);
}

void loop() {

  // put your main code here, to run repeatedly:
   if (Genotronex.available()){
BluetoothData=Genotronex.read();
   if(BluetoothData=='1'){   // if number 1 pressed ....
   digitalWrite(ledpin,1);
   Genotronex.println("LED   On D13 ON ! ");
   }
  if (BluetoothData=='0'){// if number 0 pressed ....
  digitalWrite(ledpin,0);
   Genotronex.println("LED   On D13 Off ! ");
  }
}
delay(100);// prepare for next data ...
}
```

*Code end*

**Use this device with original accessories only. Velleman nv cannot be held responsible in the event of damage or injury resulting from (incorrect) use of this device. For more info concerning this product and the latest version of this manual, please visit our website www.velleman.eu. The information in this manual is subject to change without prior notice.**