**Wiring Diagram**

PMS5003 🡪 BW16 (RTL8720 DN)

Red: VCC 🡪5V

Black: GND 🡪 GND

Orange: RXD 🡪 PB1/TX1

Yellow: TXD 🡪 PB2/RX1

BME280 🡪 BW16

Blue: VCC 🡪 3V3

Green: GND 🡪 GND

Grey: SCL 🡪 PA25

Purple: SDA 🡪 PA26

**Adding BW-16 🡪 Board to Arduino**

1. File 🡪 Settings 🡪Additional Board 🡪 paste this link - <https://github.com/ambiot/ambd_arduino/raw/master/Arduino_package/package_realtek_amebad_index.json>
2. Tools 🡪 Board 🡪 Board Manager 🡪 Search Realtek and add “Ameba ARM (32-bits) Boards - BW16(RTL8720DN)”

**\*\*PLUG IN THE DEVICE TO THE USB C PORT –** you should see a red light on the board! Congrats, POWER! Make sure the correct com port is selected…\*\*

1. Tools 🡪 serial monitor, set the baud rate to [115200]

**Erase the BW-16 Flash Memory –**

1. Tools - auto flash mode – disable

Tools – erase all flash memory – erase only

Now, use the arrow in the top left of the screen to send the erase command to the device. You will see a countdown. Press and HOLD BURN, PRESS and RELEASE RESET, RELEASE BURN.

You should see “Erase Flash Done!” in the Output window

1. Move the BM280.h code (in a folder) to the Arduino libraries
2. Same for PMS5003.h code (in a folder)

**Time to Upload Code –**

1. Tools – auto flash mode – enable
2. Tools erase all flash memory – disable

Step 2. Run the Blink example

The board will be reset automatically, press RST button if board does not support Auto Upload Mode. And the onboard RGB LED will blinking.

In each example, Arduino not only provides sample code but also detailed documentation, including wiring diagram, sample code explanation, technical details, …etc. These examples can be directly used on BW16. Refer to detailed information of the Blink example in the link below:

<https://www.arduino.cc/en/Tutorial/BuiltInExamples/Blink>

Copy and paste our code, now! (Prototype.ino)

**Use the arrow to send the code to the BW-16**