### Welcome!

Thank you very much for purchasing our AZ-Delivery BMP180 sensor. On the following pages, we will introduce you to how to use and setup this handy device.

#### Have fun!



#### Installation of the Arduino software:

Before we can start programming, we have to download the Arduino software from <u>https://www.arduino.cc/en/Main/Software</u> .

After the download and we start the installer and the following screen appears:

💿 Arduino Setup: License Agreement 📃 💷	23			
Please review the license agreement before installing Arduino. If you accept all terms of the agreement, click I Agree.				
GNU LESSER GENERAL PUBLIC LICENSE	*			
Version 3, 29 June 2007				
Copyright (C) 2007 Free Software Foundation, Inc. < <u>http://fsf.org/</u> >				
Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.				
This version of the GNU Lesser General Public License incorporates the terms and conditions of version 3 of the GNU General Public License, supplemented by the additional permissions listed below.				
Cancel Nullsoft Install System v3,0 I Agre	e			

We confirm this window with "I Agree" if you accept the license agreement.

Arduino Setup: Installation	Options			23
Check the components you want to install and uncheck the components you don't want to install. Click Next to continue.				
Select components to install:	<ul> <li>Install Arduino softward</li> <li>Install USB driver</li> <li>Create Start Menu shor</li> <li>Create Desktop shortcu</li> <li>Associate .ino files</li> </ul>	e tcut it		
Space required: 420.6MB				
Cancel Nullsoft Insta	II System v3.0 <back< td=""><td></td><td>Next</td><td>&gt;</td></back<>		Next	>

In the next window we can choose from where we can start the Arduino software and if we want to install the USB drivers as well. The best way is to set the checkmarks as shown in the picture above.

The next step is to specify the installation directory, the default directory should usually be correct:

💿 Arduino Setup: Installation Folder		23		
Setup will install Arduino in the following folder. To install in a different folder, click Browse and select another folder. Click Install to start the installation.				
Destination Folder				
C:\Program Files (x86)\Arduino	Browse			
Space required: 420.6MB Space available: 15.1GB				
Cancel Nullsoft Install System v3.0 < Back	Inst	all		

And then just wait for the arduino software to install:

💿 Arduino Setup	: Installing			23
Extract: co	:1.exe			
Show details				
Cancel	Nullsoft Install System v3.0	< Back	Clos	se



Close the installer by clicking on 'Close' button and in the start menu and desktop there will be a new icon. We start this now:



It starts the Arduino software:



And the programming window appears:





#### First steps in the Arduino programming software

Before we can start with the sensor kit, we must also define our Arduino (which you can order separately from us) in the software.

For this we go in Tools and choose:

Tools > Board: > {Select your Arduino here} Arduino/Genuino Uno



In this manual we use an Arduino Uno. But you can use any other Arduino board. At Tools > Port you only have to enter the Com-Port of your Arduino, you can read it from the device manager and change it if necessary.



Those were the first basic settings, now we can start programming.

#### Wiring the sensor



VIN is connected to 3.3V Arduino GND is connected to GND SCL is connected to SCL SDA is connected to SDA Red wire Black wire Yellow wire Green wire

For the sensor we still need a library. We have to install it manually by downloading the library here:

https://www.dropbox.com/s/2emtotpdl60lb3z/BMP180.zip?dl=



To add this .zip library to your Arduino IDE, go to Sketch > Include Library > Add .ZIP library, and add downloaded .zip file.

🥺 sketc	h_apr	04a   Arduino 1.8.8		_		×	
File Edit	Sket	ch Tools Help					
$\bigcirc \bigcirc$		Verify/Compile	Ctrl+R			Ø	
		Upload	Ctrl+U			_	
sketch		Upload Using Programmer	Ctrl+Shift+U				
void se		Export compiled Binary	Ctrl+Alt+S		Δ		
// pu		Show Sketch Folder	Ctrl+K	Manage	Librarie	s Ctrl+	Shift+I
}		Include Library	>	Add .ZIF	Library.		
void lo		Add File		Arduino	libraries	;	

To load sketch example go to File > Examples > Sparkfun BMP180 > SFE\_BMP180\_example.



Than upload sketch code into your arduino board, and start Serial Monitor by going on Tools > Serial Monitor

Tools	Help	
Auto Format		Ctrl+T
	Archive Sketch	
1	Fix Encoding & Reload	
1	Manage Libraries	Ctrl+Shift+I
	Serial Monitor	Ctrl+Shift+M
	Serial Plotter	Ctrl+Shift+L
	WiFi101 / WiFiNINA Firmware Undater	

Make sure to use 9600 baud rate in serial monitor. If everything worked fine, you should get something like this in your Serial Monitor:

```
X
💿 COM9
                                                                            Senden
provided altitude: 1655 meters, 5430 feet
temperature: 26.29 deg C, 79.32 deg F
absolute pressure: 965.63 mb, 28.52 inHg
relative (sea-level) pressure: 1179.36 mb, 34.83 inHg
computed altitude: 1655 meters, 5430 feet
provided altitude: 1655 meters, 5430 feet
temperature: 26.29 deg C, 79.32 deg F
absolute pressure: 965.58 mb, 28.52 inHg
relative (sea-level) pressure: 1179.30 mb, 34.83 inHg
computed altitude: 1655 meters, 5430 feet
provided altitude: 1655 meters, 5430 feet
temperature: 26.28 deg C, 79.31 deg F
                                                                                   Ξ
absolute pressure: 965.60 mb, 28.52 inHg
relative (sea-level) pressure: 1179.32 mb, 34.83 inHg
computed altitude: 1655 meters, 5430 feet
✓ Autoscroll
                                   Sowohl NL als auch CR -
                                                       9600 Baud
                                                                        Ausgabe löschen
```

Now you can try out the 2nd example, which calculates the altitude change of your sensor.

### You've done it, you can now use and program your sensor in your projects.

Now it is time to learn and make the Projects on your own. You can do that with the help of many example scripts and other tutorials, which you can find on the internet.

If you are looking for the high quality products for Arduino and Raspberry Pi, AZ-Delivery Vertriebs GmbH is the right company to get them from. You will be provided with numerous application examples, full installation guides, eBooks, libraries and assistance from our technical experts.

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