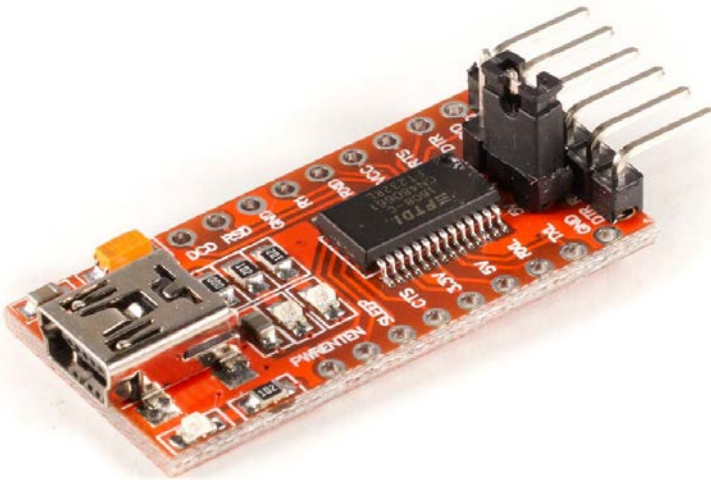


Welcome!

And thank you for purchasing our **AZ-Delivery FT232RL FTDI Adapters**! On the following pages, we will take you through the first steps of setting up the adapter to controlling hardware with a serial interface. We wish you a lot of fun!



<http://flyt.it/FTDI>

The **AZ-Delivery FTDI Adapter** provides a **UART data connection** between a PC and other hardware, which does not have its own USB converter. It can be set to a **3.3V-** or a **5V-Logic-Level** if needed. One can connect to a PC through a Mini-USB-B-cable.

Overview of the most important information

- » Data connection via Mini-USB-B-cable
- » compatible with 3.3V- and 5V-Logic
- » Male Pins connectors: DTR, RX, TX, VCC, CTS, GND

On the following pages, you will find information about

- » **Driver installation**

And instructions for

- » **GPS-location on the PC with the AZ-Delivery NEO-6M GPS.**

In this tutorial, it is assumed that you can work with Arduino IDE and its Terminal!

Overview of all Links

FTDI:

- » Driver: <http://www.ftdichip.com/Drivers/VCP.htm>
- » Datasheet: http://www.ftdichip.com/Support/Documents/Data-Sheets/ICs/DS_FT232R.pdf

Application programming interfaces:

- » Arduino IDE: <https://www.arduino.cc/en/Main/Software>
- » Web-Editor: <https://create.arduino.cc/editor>
- » Arduino extension for Sublime Text:
<https://github.com/Robot-Will/Stino>

Arduino Tutorials, Examples, References, Community:

- » <https://www.arduino.cc/en/Tutorial/HomePage>
- » <https://www.arduino.cc/en/Reference/HomePage>

Interesting information from AZ-Delivery

- » AZ-Delivery NEO-6M GPS-Module:
<https://az-delivery.de/products/neo-6m-gps-modul>
- » Other Arduino accessories:
<https://az-delivery.de/collections/arduino-zubehor>
- » AZ-Delivery G+Community:
<https://plus.google.com/communities/115110265322509467732>
- » AZ-Delivery on Facebook:
<https://www.facebook.com/AZDeliveryShop/>

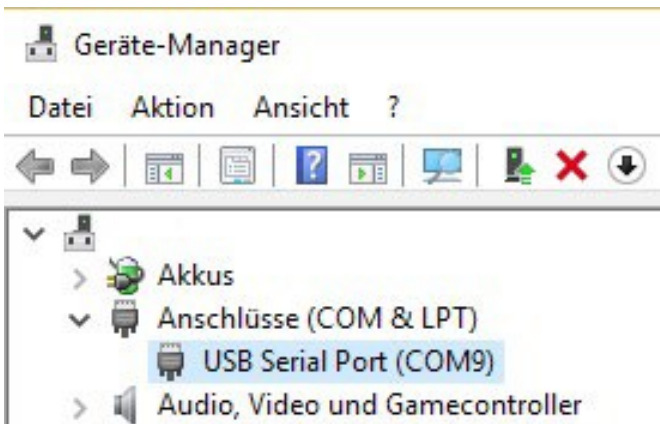
Installation of FTDI-Drivers

Normally, this step can be skipped, simply because the **FTDI USB-Converter** is already supported, by default, by most systems.

If, however, that is not the case with you, then please download the **VCP-Driver** (VCP = Virtual COM Port) that is compatible with your system, which is from the side of the chip's manufacturer, and then follow the instructions of the installation process.

» <http://www.ftdichip.com/Drivers/VCP.htm>

If necessary, restart your computer. In Windows, as soon as you connect your **FTDI-Adapter** to your PC, you should see a COM-port in the Device-Manager.



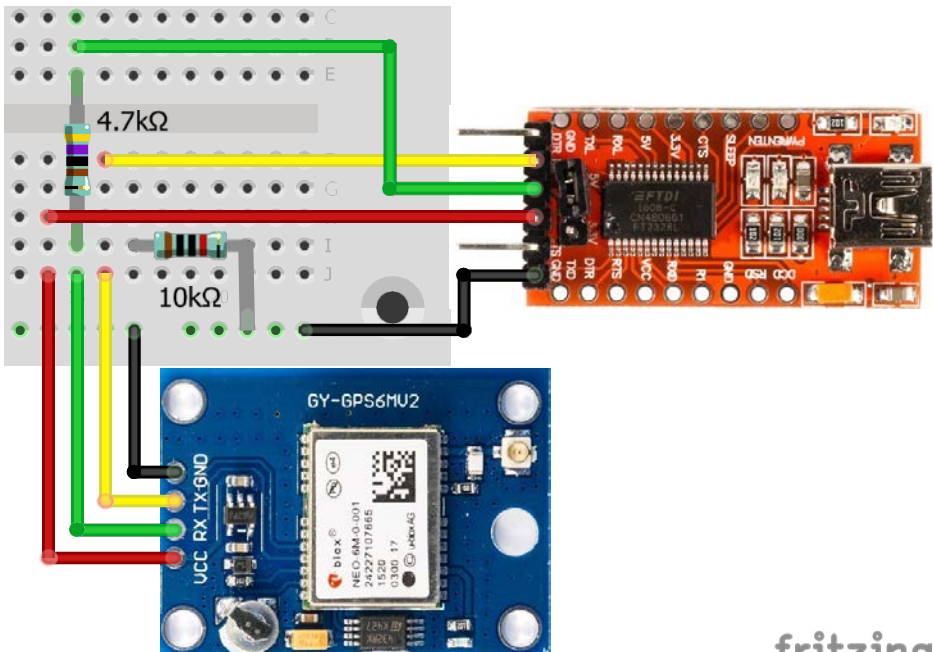
GPS-tracking with the AZ-Delivery NEO-6M GPS

The AZ-Delivery NEO-6M GPS-Module is one of many Arduino-compatible modules that communicate via a **serial interface**. With the help of the **FTDI-converter**, you can view the data of the GPS-receiver directly on the PC.

You can also obtain the **NEO-6M** here:

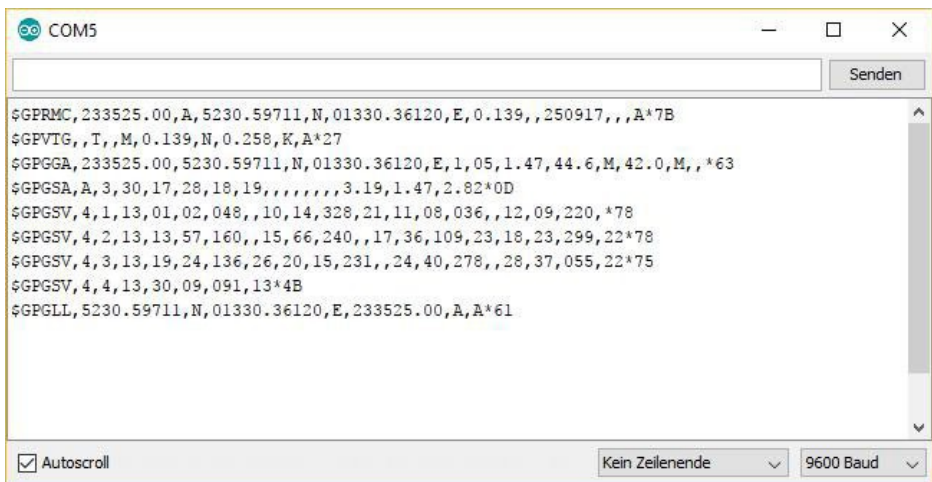
» <https://az-delivery.de/products/neo-6m-gps-modul>

Now connect both modules with one another, as shown in the picture.



Next, you have to connect the FTDI adapter to your computer, start the **Arduino IDE**, choose the correct port and open the **Terminal** at a **Baud rate** of **9600**. As soon as the GPS module is supplied with power, it commences a search for its position and passes it on via the **serial connection**.

Once the signal is found, then the terminal should look similar to the picture below:



The screenshot shows the Arduino IDE Serial Monitor window titled "COM5". The window has a text input field at the top and a "Senden" button. The main area displays the following GPS data lines:

```
$GPRMC,233525.00,A,5230.59711,N,01330.36120,E,0.139,,250917,,,A*7B
$GPVTG,,T,,M,0.139,N,0.258,K,A*27
$GPGGA,233525.00,5230.59711,N,01330.36120,E,1,05,1.47,44.6,M,42.0,M,,*63
$GPGSA,A,3,30,17,28,18,19,,,,,,,,,3.19,1.47,2.82*0D
$GPGSV,4,1,13,01,02,048,,10,14,328,21,11,08,036,,12,09,220,*78
$GPGSV,4,2,13,13,57,160,,15,66,240,,17,36,109,23,18,23,299,22*78
$GPGSV,4,3,13,19,24,136,26,20,15,231,,24,40,278,,28,37,055,22*75
$GPGSV,4,4,13,30,09,091,13*4B
$GPGLL,5230.59711,N,01330.36120,E,233525.00,A,A*61
```

At the bottom of the window, there are three controls: a checked "Autoscroll" checkbox, a dropdown menu set to "Kein Zeilenende", and a dropdown menu set to "9600 Baud".

You did it! Congratulations!

Now it is time to learn. With the assistance of the **AZ-Delivery FTDI Adapters**, you can not only receive data from a module with a serial interface but also program Controller-Chipsets, such as **ATmega328P** of an Arduino UNO or an **ESP8266** without a Board with its own USB converter. More tutorials are available on the Arduino website. And you can naturally find connecting hardware in your online store, here at:

<https://az-delivery.de>

Enjoy!

Imprint

<https://az-delivery.de/pages/about-us>