

Hello again from Konstantinos, SV1ONW.

I have added two more sketches for my initial project.

GPS_HELPER_v1.65 is almost the same as v1.63 or v1.631 (just corrected a typo). I have simply added an internal timer method, to count the time till the GPS module gets synchronized with the Sat system and starts counting the real time so that we know how much really that takes. It simply increases the code size!

GPS_HELPER_v2.65 is again the same but using a different screen layout and different OLED Library, again taking more code, but looked finer to some friend who asked for it. It is a matter of taste at the end of the day, I think. Oliver Kraus has been making very nice and well documented Display Libraries such as U8g2 for years now!

A bit of WARNING: Be very careful when Uploading sketches Using Programmer. Always doublecheck that the Crystal Clock parameters are correct. GPS info transmission to MCU needs to have correct timing for 9600 Bps. If you set the (Crystal) **Clock** to other than "**8 MHz external**", it simply ain't gonna work!

Trying to test the compatibility of APRS Controller board, I wanted to try a somehow different sketch for the same purpose.

Looking at the excellent site of ROBOTZERO.ONE (<https://robotzero.one/>), I found the code for a project called:

Arduino Uno with NEO GPS and OLED

This project displays the latitude and longitude from a GPS sensor on an OLED display using the I2C protocol.

I found it a good opportunity to see if it could easily work with SV1AFN's board. It used a different GPS library, NeoGPS which I installed and the U8g2 OLED library.

I read at the author's site the instructions:

From Arduino IDE open the library manager (Sketch > Include Library > Manage Libraries) and search for and then install each of the following: **NeoGPS** and **U8g2**.

To see the Satellites tracked (TKD), Available (AVL) and the time (UTC) at the bottom of the screen a few edits have to be made to one of the configuration files.

In Windows, find this file:

`C:\Users\#YourUserName#\Documents\Arduino\libraries\NeoGPS\src\NMEAGPS_cfg.h`, or just search your PC for `NMEAGPS_cfg.h` and uncomment the following three items (remove the preceding `//`):

```
//#define NMEAGPS_PARSE_GSV
//#define NMEAGPS_PARSE_SATELLITES
//#define NMEAGPS_PARSE_SATELLITE_INFO
```

and save the file.

I followed the instructions. Then the other thing that I had to modify or rather specify was the UART where the GPS module is directly connected (D0, D1).

So instead of using `#include <GPSPORT.h>` that tries to autodetect the serial connection of the GPS module I simply commented it and directly defined the UART port as follows:

```
// The GPSPORT.h include file tries to choose a default serial port
// for the GPS device. If you know which serial port you want to use,
```

// edit the GPSPORT.h file.

```
#include <GPSPORT.h>
```

I simply removed (i.e. comment) that for the APRS Controller board and added the following:

```
#define gpsPort Serial
```

```
#define GPS_PORT_NAME "Serial"
```

```
#warning Using Serial for GPS connection.
```

That was enough. I verified/compiled the sketch with no issue and then I Uploaded it Using Programmer. It worked right away. Congrats to the author!

Then I just made some changes to match my taste such as displaying the UTC time instead of UTC+2 that the author had chosen plus the initial message. Nothing else.

I then took the liberty to upload the program just for testing purposes.

Obviously all credits go to the original author of the code at RobotZero.One

This version was named APRS_neo_gps_V1.1