

```
AVR-HyperTerminal
File Modifica Visualizza Chiama Trasferimento ?
Switch off the DIP2 or remove the programming 5-wires clip...

Welcome to AMC1.5 motor KP acceleration configuration!
By Thanos (TronicGr) (crystal 14.318181Mhz)

Previous stored Y= 3
Previous stored X= 3
Enter new value for Y-axis KP (3-30):4
Enter new value for X-axis KP (3-30):4

Y-axis KP=4
X-axis KP=4
Save changes to internal eeprom memory? (y/n):y

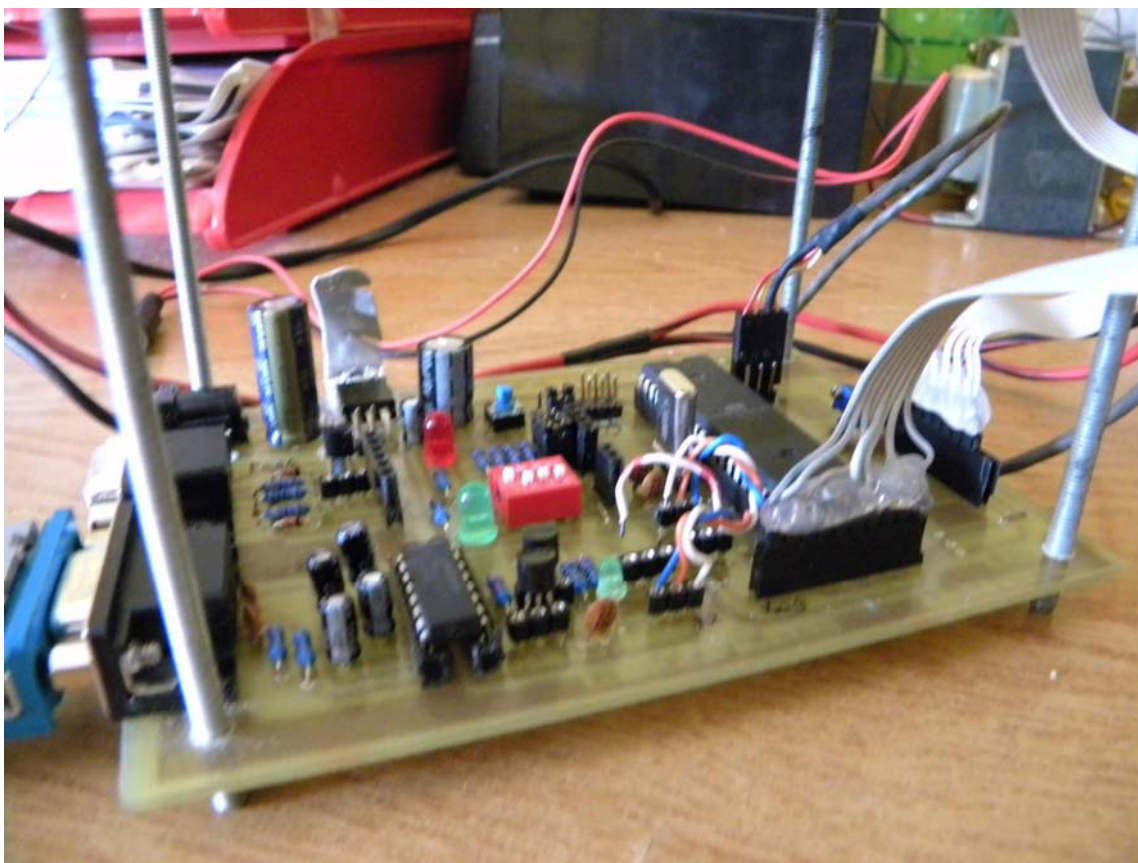
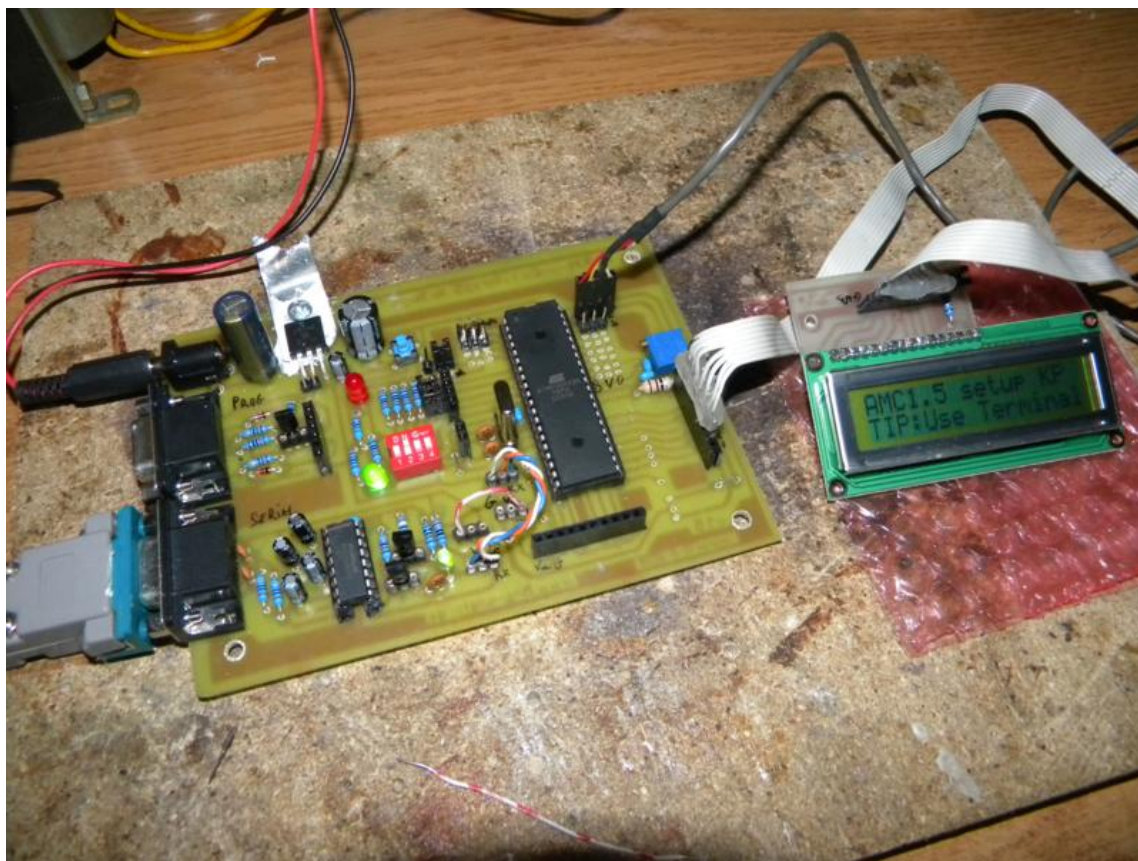
New Data is stored!

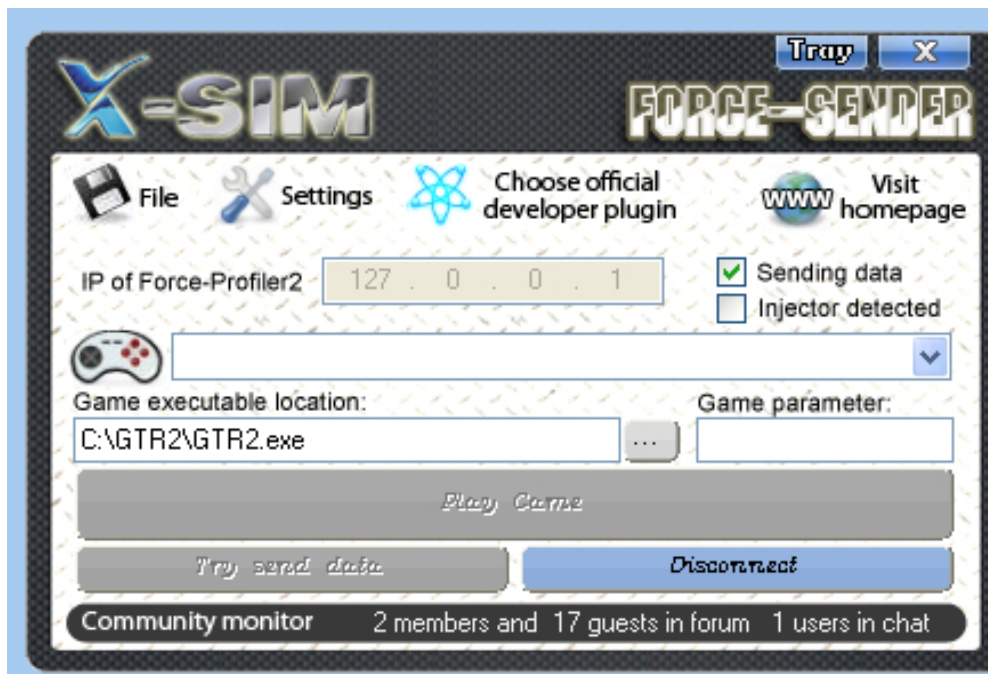
Switch off the DIP2 or remove the programming 5-wires clip...
-

Connesso a 0.00.30 Rilev. aut. 115200 8-N-1 SCOPE IASLSC NUM Accelera Eco Stampante
```




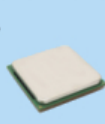



















192.168.1.157



Start

Input setup

Math setup

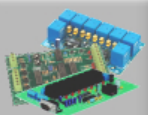
Output setup

Calibration setup


Gauge setup

Interface settings

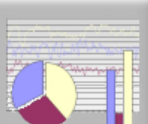
Program settings



Synaptrix  
IO Output



Universal  
Serial  
Output



Statistic  
Logfile

Interface for external position control (like SPS profibus, the old Rock'nRide interface or motion control boxes)

First find one free comport and add it to the list: Porta di comunicazione (COM1) Add comport to list Refresh

Device path: \\?\acpi#pnp0501#1#{86e0d1e0-8089-11d0-9ce4-08003e301f73}

For non ISA comport (USB) or comport's higher than 4 write the path \\.\COM1 or \\.\COM9 in the comport selection box above.

Calculate the output of each axis and choose type of output. (output is normally 0 to 255 as character, 127 is middle position)  
If you like to use a axis value with 8bit resolution and another resolution, then you have to duplicate this axis.

Right = ~a02~ value = ( value / 1 \* 1 ) + 0

☒ 8 bit resolution (0 ... 255) LowRes
 ☐ 16 bit resolution (0 ... 65535) MedRes
 ☐ 32 bit resolution (0 ... 4298769224) HighRes

☒ binary output (e.g. one character)
 ☐ dezimal output (e.g. 3 or 123)
 ☐ hexadezimal output (e.g. 01FA)

Tip: If only 4 bits instead of 8 bits are used, use divider /16 and multiply it with the offset needed (e.g. 2 Bit = \*4) then use the last value to set a constant bitmask. Also u can invert output by multiply with -1 and add 255.

Tutorial "How to use USD parser"

Output Protocol Parser: (the values that will be send every cycle)

Use character that have to be send to the receiving device like before and after the axis value.  
Use ~a01~ or ~a02~ if you want to insert the x or y axis at this position, declared as the characters above.  
For special values or character like return use ~n~ where n is a ascii number between 0 to 255. Return would be ~13~.  
Linefeed ~10~.  
Example: The device needs a Character "S" for send, the x axis value and then return to proceed:

Select comport to edit: COM1 Remove comport

Set comport speed and control: 115200 8 NOPARITY ONESTOPBIT ☒ lock ports on startup

Datapacket sent at simulatorstart:  and wait for HW init 0 ms

Datapacket with axisinformations: AB~255~~a01~~a02~ with a pause of 33 ms /

Datapacket sent at simulatorstop:  and wait for HW stop 0 ms

**X-SIM PROFILER 2.1**

File menu | My simulator | 192.168.1.157 | Open manual | Weblink

Start

Input setup | Math setup | Output setup | Calibration setup | Gauge setup | Interface settings | Program settings

Show math setup of axis: Left

Found math plugins:

- 2DOF-MCA
- Threshold (Collision)
- Copy and combine
- Output 1:1 (GForce)

Add line Edit line Remove line Move one line up Move one line down Add a desktop slider Show math sliders Top

#	math plugin	result	slider	value	invert	minimum
1	Output 1:1 (GForce)		value#	26	invert	true
2	Output 1:1 (GForce)		value#	27	invert	true
3	Output 1:1 (GForce)		value#	25	invert	false
4	Percent scaler		percent	50	n.a.	n.a.
5	Calibration offset		Current:	0 %		

Calibration offset of this axis: 0

Symetric offset (reduce range) [X]  
Asymetric axis offset (full range)

Realtime result analyzer: Green shows selected result, blue final result and grey color shows you the reduced range



## Simple resize math setup (G-Forces, curves and gauges)



## First step (choose sender input value)

Choose one Force-Sender input value displayed in the input setup:

Sender input 26: Effect 26: Vertical force

☒ Invert input value ☐ Play override (normally set blank)

## Second step (set range parameter)

Choose the minimal and maximal numerical value of the chosen Force-Sender input value. This will prevent spike values.

Maximum value 1500000

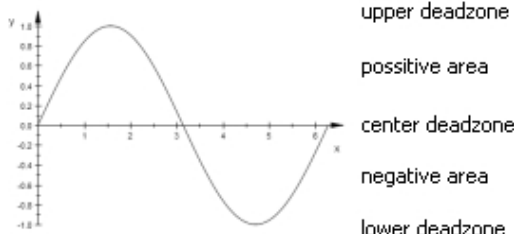
Minimum value 150

☒ Split negative and positive

Minimum value - 150

Maximum value - 1500000

☐ Use automatic maximum adjustment ☐ Use automatic minimum adjustment (10%)



## Third step (set influence to axis)

Choose intensity of this value to the axis in percent: 20 %

Adjust smoothness only, if your value is fidgety: (Current setting: off)  
smooth movement is given in seconds from minimum to maximum value of this axis

weak/off smooth

☒ add result value ☐ multiply result value ☐ overwrite result value

☐ overwrite result if bigger than zero (used as trigger)

Cancel

This math plugin is used for an 1:1 translation of an force-sender input value to a specified hardware output. Therefore it will be resized to fit the output axis. You can also cut too big values. Normally this plugin is used for realistic values out of an game, which don't need any calculation and therefore can be used directly for an output of e.g. an actuator. An example are the game plugins of force-sender, which carry G-force values like lateral or longitudinal forces.



Using gravity (G) effects creates a constant force to your body by moving the simulator in contrariwise direction to the direction your vehicle moves in order to simulate the real G-forces. The intensity can be regulated.

The effect will be initialised only if the value rises above the minimum value. Maximum value increases automatically or can be given fixed. Split the maximum if there is a greater acceleration value than the brake value.

Hint: the standard settings of this dialog will help you with a fast detection and can be accepted for beginners.

Insert in math list and continue

## Simple resize math setup (G-Forces, curves and gauges)



## First step (choose sender input value)

Choose one Force-Sender input value displayed in the input setup:

Sender input 27: Effect 27: Longitudinal force

☒ Invert input value ☐ Play override (normally set blank)

## Second step (set range parameter)

Choose the minimal and maximal numerical value of the chosen Force-Sender input value. This will prevent spike values.

Maximum value 1500000

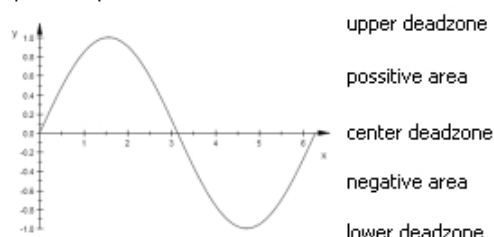
Minimum value 150

☒ Split negative and positive

Minimum value - 100

Maximum value - 1000000

☐ Use automatic maximum adjustment ☐ Use automatic minimum adjustment (10%)



## Third step (set influence to axis)

Choose intensity of this value to the axis in percent: 55 %

Adjust smoothness only, if your value is fidgety: (Current setting: off)  
smooth movement is given in seconds from minimum to maximum value of this axis

weak/off smooth

☒ add result value ☐ multiply result value ☐ overwrite result value

☐ overwrite result if bigger than zero (used as trigger)

Cancel

This math plugin is used for an 1:1 translation of an force-sender input value to a specified hardware output. Therefore it will be resized to fit the output axis. You can also cut too big values. Normally this plugin is used for realistic values out of an game, which don't need any calculation and therefore can be used directly for an output of e.g. an actuator. An example are the game plugins of force-sender, which carry G-force values like lateral or longitudinal forces.



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