ALFANO 6

Manual (EN)

ALFANO

For more than 20 years, Alfano S.A. is major player in the Karting industry. After more than three years of development and extreme testing in house or in colaboration with our partners in the industry we are proud to release the Alfano 6.

Developped without compromises, the Alfano 6 is presently known as the best device on the market according to the professionnals of the sector. The factory setup allows you to directly enjoy your device with all the automatised features while letting you go deeper in the settings and options (see additional products).

Alfano, we took the time to be performant

In technical terms, the Alfano 6 it's :

• 2600 tracks in an ever expanding database
(consultable in Parameters > Track Consultation or on the Alfano 6 App)

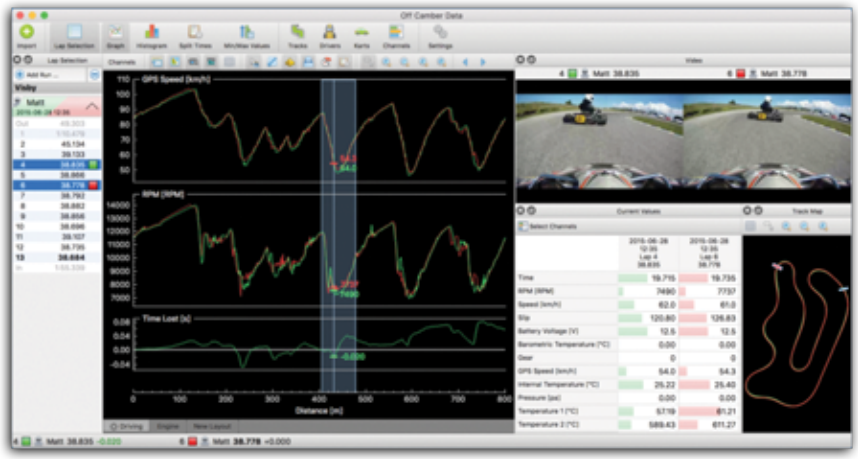
• An automatised feature that recognize your track or create it

• The reception of three GPS satellite networks for worldwide coverage and ever higher accuracy, Navstar USA, Glonass UK and Galileo EU (operational since November 2017)

• A battery with a very superior endurance (40 hours of use) to any other competitive products rechargeable via a USB cable (provided) and allowing charging via a Powerbank if you do not have access to a socket.

• A simple, intuitive Bluetooth connection linked to a powerful App that allows data analysis on all iOS or Android platforms.

• The developers of Off Camber Data also offer PC analysis software compatible with your Alfano 6.



Setup

L'Alfano 6 : The Alfano 6 is designed for installation on your steering wheel. You can instal it in place using the screw thread on the back of the unit and the nut (supplied). For a greater comfort of use and a reduction of vibrations pay attention to place on both sides of your steering wheel the rubber washers (provided). The shell of your device should not hit against your steering wheel, if needed you can use the black washer to space out your device.

Before continuing your use of the Alfano 6 we recommend that you configure your device according to your requirements and preferences to facilitate its use and any future manipulations.

Info : You can get at any time more information directly on your Alfano 6 thanks to the "info" option accessible by pushing the central right button of your Alfano 6

Settings

Usage preferences: to turn on your Alfano 6, press the button at the bottom right. Once the Alfano 6 is running, we invite you to configure the various parameters available in the menu represented by a gear

Language: Using the top and bottom buttons on the left of the device, navigate to the Languages icon represented by the flags and select your language.

Settings

Units: In the submenu menu Settings (indicated by two crossed tools) you will find the sub-menu "Units". You will be able to choose between kmh and mph, kilometers and miles, degrees Celsius and Fahrenheit

Format - Time zone hour: In the Date and Time submenu you can select the format that corresponds to your preference and time zone. This information is important to help you find your data during their analyzes. As for the schedule, the GPS will automatically adjust your Alfano 6.

Your visual preferences: In the Settings menu, enter Brightness sub-menu represented by a lit bulb.

Viewing Configuration

1. **Backlighting :** By default the backlighting is activated automatically thanks to a brightness sensor but you can choose to activate or desactivate it permanently

2. **Color:** Choose the color of your backlight according to your preferences

3. **Power :** Set the intensity of your backlight here

4. **LED Power :** Set the intensity of the indicator lights on the top of your device according to your preferences. These LEDs can show you several types of information such as RPMs, temperatures, lap times and more. You will find information on this topic in the chapter "Display Course".

Driver name: In the settings menu you can enter the names of the drivers (up to 6) on the headset icon so that they appear on the home screen and in your datas.

Standby: In the settings menu you will find the sub-menu "Standby" where you can set the time before stand-by (in minutes) as well as the idle time before the Alfano 6 stops.

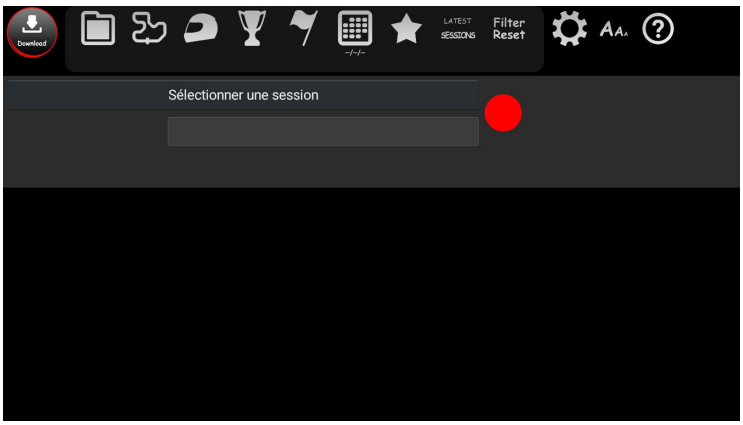
While on standby, the Alfano 6 consumes almost no energy and will light up when an RPM signal is received (see "The RPM Sensor" - page 7) or by pressing the "On / Off" button ".

Connectivity and APP

For optimal use of your Alfano 6 you can connect your device to its dedicated App. To do so, download the application ALFANO 6 (Android or iOS) on your smartphone or tablet and then pair it with your device.

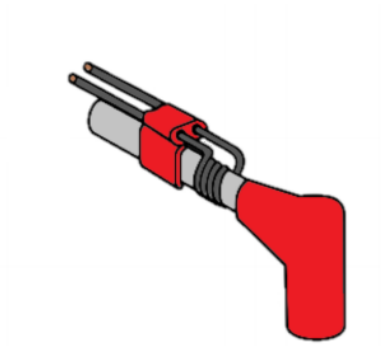
To do this, press the middle button on the right labeled with the Bluetooth logo and activate your application on your iOs or Android support (see the section dedicated to the App)

You can also download the data of your Alfano 6 with a USB cable (not supplied - Ref: A4520) and read them on PC with Off Camber Data (not supplied - paying)



You can connect your Android tablet to your Alfano 6 using a mini or micro USB adapter (not included)

RPM



The RPM Sensor: In order to transmit to your Alfano 6 the RPM signal of your engine it's necessary to install the RPM sensor (ref A1600) on your spark plug cable.

You can use the RPM sensor as shipped or, if the signal is too weak, place turns around the cable as in the diagram above.

Then connect it to your Alfano 6 using the notch provided on the left side of the back of the device

Configuring your Alfano 6: In your Parameters submenu, enter in the RPM sub-menu your maximum RPM (according to your engine manufacturer's recommendations). The most common value for "RPM Factor" is "x1"

Configuring your LEDs: In your "Display Config" sub-menu, enter the LED Indicator submenu and select the "RPM Mode" feature. Here you can configure the color and the corresponding RPM level of each LED.

Temperatures

Temperatures: Your Alfano 6 can read two temperatures. These are connected to the red input on your Alfano 6. If you want to simultaneously read the two temperatures listed below, you will have to use a Y-connector (ref: A2190) or Box12 (ref: A1160)

Water temperature: To install this sensor we recommend using the location provided for this purpose on your engine or our hose adapters and place the sensor in the space provided for this purpose.

References Water Temperature Sensor: A2101, A2152
References Adapter Hoses: A261, A262, A263

In order to monitor the temperature of your engine, you can use one of the two LEDs alarms and set a minimum and maximum temperature.

Configuring your alarms (LEDs): In your "Display Config" submenu, enter the Max or Mini LED left (or right) alarm submenu. Here you can set the temperature type (in this case T ° 1 Water / Cylinder head) but also the maximum or minimum temperature, the color of the LED and its display mode.

Temperatures

Exhaust Temperatures: Most of today's kartings have an exhaust that provides a hole for sensor placement. If not, we recommend welding a nut (Ref: A272A) to fix the sensor.

References Exhaust Sensor:
A2151 (Professional), A2158 (Standard)

For the use of this type of sensor, an extension (Ref: A3401) will be necessary.

Configuring your alarms (LEDs): In your "Display Config" submenu, enter the Max (or the left) Alarm LED submenu Max or Mini. Here you can configure the temperature type (in this case T ° 2 Exhaust gases) but also the maximum or minimum temperature, the color of the LED and its display mode.

Caution: For greater durability of your equipment we invite you to configure these two parameters as well as related alarms according to manufacturer recommendations or to seek advice from your dealer or preparator.

Interfaces

Interfaces: The Alfano 6 offers you to customize your racing interfaces and thus create your display according to your preferences or needs. You can also navigate through the racing interfaces by pressing the button on the top right.

In order to customize your interfaces, go to the Course Display Setup menu (icon at the top right corner of your main menu) where you can create up to 4 screens.

Configuration:

1. Add a cell with the "+" icon
2. Move the cell on the screen
3. Choose the size of the cell
4. Change it's color (black or white)
5. Delete the cell
6. Name the interface
7. Pre-visualize the interface
8. Exit, Save or Delete the interface

Info: We indicate as "cell" a set of data displayed in connection with a sensor.
Example: The RPM sensor data is represented in the RPM cell

The light bulb icon allows you to configure the use of the LEDs for the interface you are designing.

Transmission

Transmission: If you have a shifter kart and wish to display your gear in real time, you can select the option in the settings menu and select the "Transmission" page.

After having selected the gearbox mode in the Transmission menu you can enter the number of gear and then start learning. This quick and intuitive process that you can perform on the truck will require you to switch each gear (engine speed between 3000 and 5000RPM). The Alfano 6 will learn from itself.

A new learning session will be required if the gearbox, gearing or crown are replaced.

Info: To use this function, the use of an RPM sensor (supplied) and a speed sensor is mandatory (see page 14)

Track Management

The Alfano 6 offers you three track management options: Automatic, Professional and Magnetic Classic. You will find below the details of each mode.

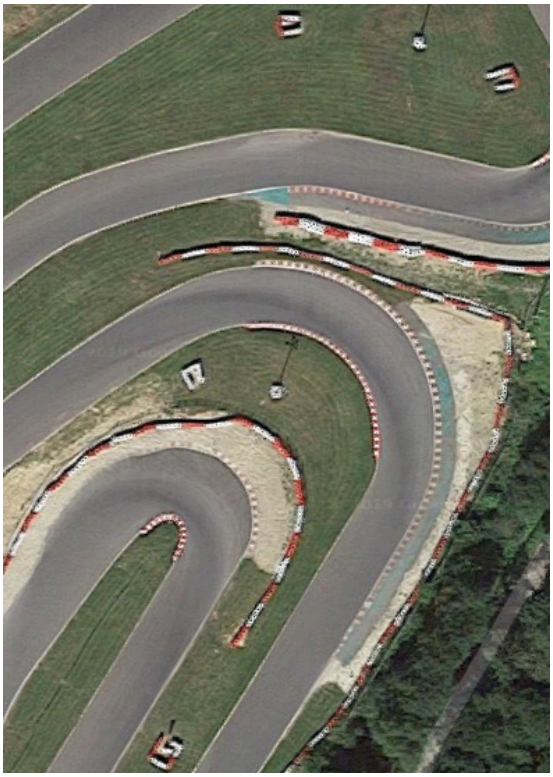
Automatic:

By default, your Alfano 6 will be in Automatic mode and will recognize by itself the track if it is in the database.

If this is not the case, the Alfano 6 will create the track based on your GPS information during your first lap.

In the case of several nearby tracks or a track proposing several layout, the Alfano 6 will be semi-automatic mode and will suggest you to choose the configuration corresponding to your use.

Track Management



Professional:

In professional mode, two possibilities are available:

Circuit design in GPS mode only:
In this mode, indicate that you want to create a circuit then make a tour of the circuit, the latter will be created automatically once the first lap is done.

Circuit design in GPS-Magnetic:
In this mode, your Alfano 6 will cross magnetic field data and associate them with GPS positions.

Magnetic field informations will have priority for your timing. However the registered GPS coordinates can replace the magnetic fields in case of malfunction of the latter.

In the case of a magnetic circuit, the starting line will necessarily be a magnetic field. You can also choose which magnetic field acts as a starting line. However, as opposed to Classic Magnetic mode, you do not need to configure the number of magnetic fields available.

Once the circuit is created, several options are available:

Choose : Allows you to choose a circuit in your "Professional" database

Edit : Allows you to add, modify, delete or move intermediaries (up to 5 GPS intermediaries) or move the starting line (in the case of a GPS point).

Remove : Allows you to delete a circuit from your "Professional" database

Duplicate: Allows you to copy a circuit. This action will allow you to create two versions of the same circuit

Magnetic Classic:

The Alfano 6 also offers a 100% Magnetic mode for indoor circuits (requiring A1302 sensor against).

In this mode, when creating a new circuit, Alfano 6 will ask you to configure the number of available fields on the track and the field on which you want to place the start line.

Additional equipment

The Boxs:

The Boxs allow you to increase the capacity of your Alfano 6. We offer two models:

Box4Move (ref: A1204):

This box incorporates a G force sensor and allows you to connect three position sensors
(pedals and wheels - see below)

Box12 (ref: A1160):

This box integrates a G force sensor and allows you to use up to 12 inputs:

3 position sensors,
1 valve sensor
4 temperature sensors,
4 speed sensors
1 analog input
1 lambda sensor
1 additional bus connection
1 external charge input of the battery
1 input to connect your Box12 to your Alfano 6

Some physical inputs can be doubled via the use of a HUB
Ref: A2194, A2193, A2190

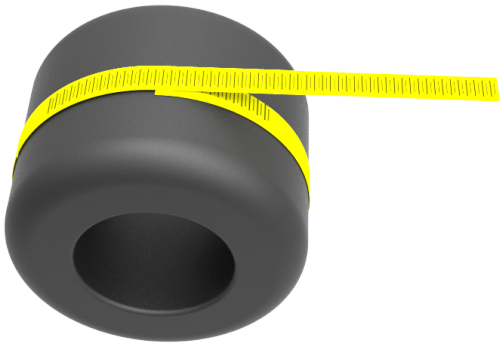
Additional equipment

Sensors :

Speed sensor (ref: A2203):

This sensor allows to know your speed relative to the rotation of the ring placed on the axle. This data is a more accurate, more responsive and real-time representation of your speed than that presented by the GPS module (professional use). This sensor will allow you for example to better identify the moments when your karting is not touching the tarmac

Ring Reference : A441, A442, A443, A444, A445, A4461



To correctly configure your displayed speed, go to the parameter menu and then in the "Speed sensor" sub-menu to select the number of magnets in the ring and the circumference of the wheel (this measurement must be taken with a designer ribbon). to take into account the wear and pressure of the tire)

Pedal Sensor (ref: A2405):

This sensor allows to know the position of each of the pedals during your analysis (App and software).

The installation of this sensor requires the use of a Box4Move (A1204) or Box12 (A1160). For more information please refer to the previous page.

The calibration functions will unblock with the connection of one of these products and are available in the Settings menu.

Additional equipment

Steering wheel sensor (ref: A2401):

This sensor allows to know the position of your steering wheel during your analysis (App and software).

The installation of this sensor requires the use of a Box4Move (A1204) or Box12 (A1160). For more information please refer to page 13.

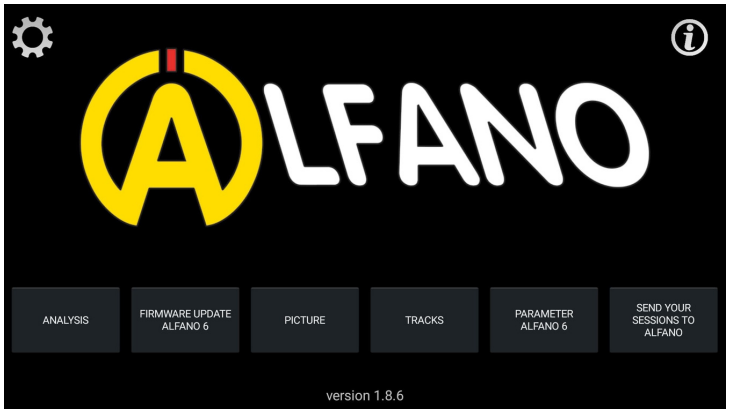
The calibration functions will unblock with the connection of one of these products and are available in the Settings menu.

The Alfano 6 App

The Alfano 6 app is available for free on Android and iOS under the name ALFANO6.

When you open your application, it automatically activates the Bluetooth, thank you to leave this function on to allow the exchange of information with your Alfano 6.

Home Page



On the home page you will find two icons:

Allows you to configure your application settings like:
Language
The unit of speed (kmh or mph)
The temperature unit (C or F)
The date format
Your Vehicle Type (Karting, Motorcycle, Car)

Redirect you to the manual of Alfano 6

The tabs on the lower part of the screen gives you access to several features that we will detail.

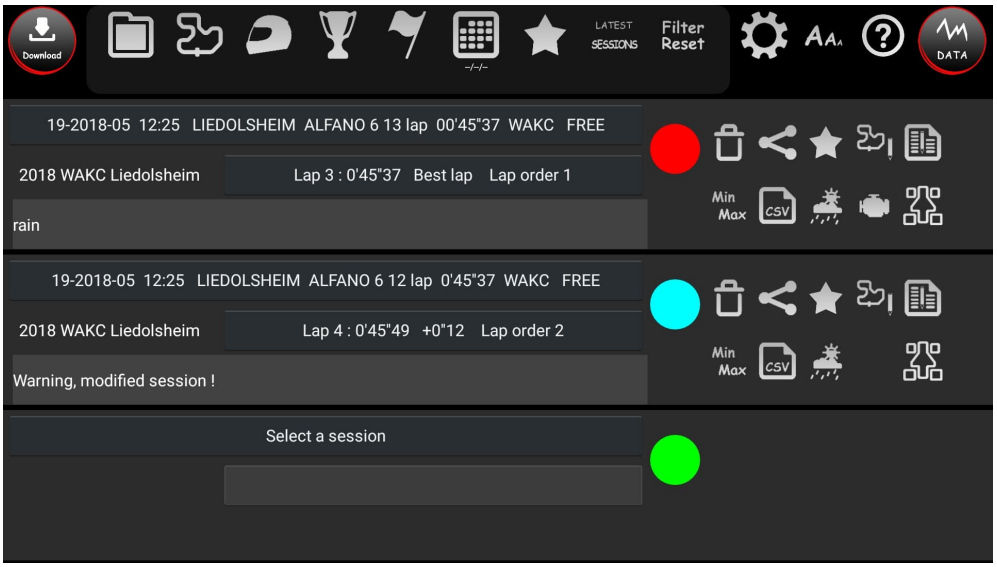
Analysis

By pressing the analysis button you enter the menu of the same name.

To download the data from your Alfano 6 press Download (top left).
This will start the pairing between your application and your Alfano 6. You can also select the number of sessions you want to download.

Once the data is retrieved you can, using the filter bar, navigate through all of your sessions and select the one you want to analyze.

The Alfano 6 App



On the upper part of the screen you will find several filters allowing you to find the session you want to analyze in your database. Each icon proposes a filter according to different variables:

The folder where you saved your session

The circuit on which the session was recorded

The driver who recorded the session

The championship during which the session was recorded

The type of test corresponding to the session

The date of the session

Filter the number of sessions displayed

Reset your filter settings

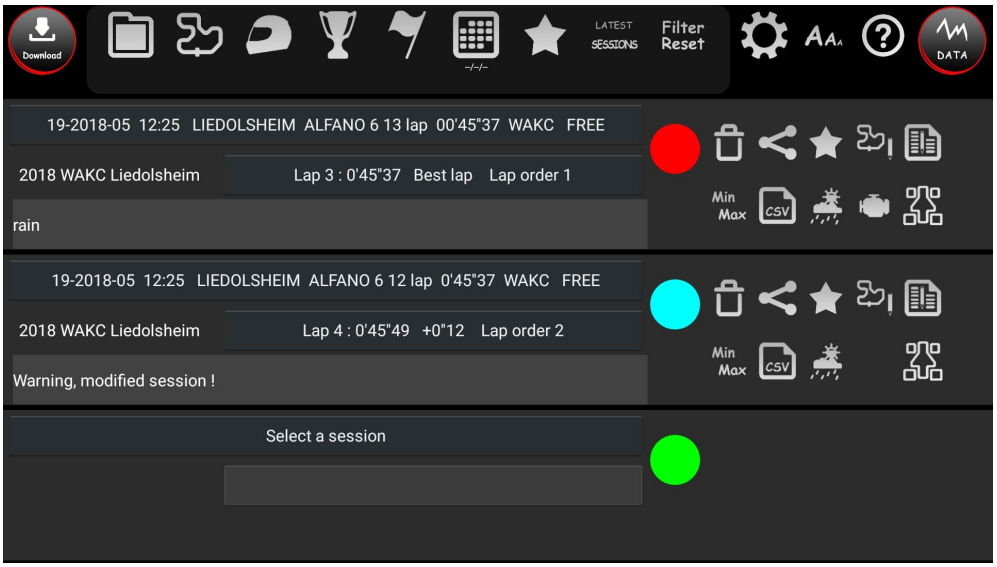
For Android users: Allows you to change the size of the font

Parameters for Back-up

Informations for the page

Once the session is selected you can insert a comment to help you better understand the analysis of your session later (example: register a race incident).On the colored circle you will be able to select the color corresponding to this session.

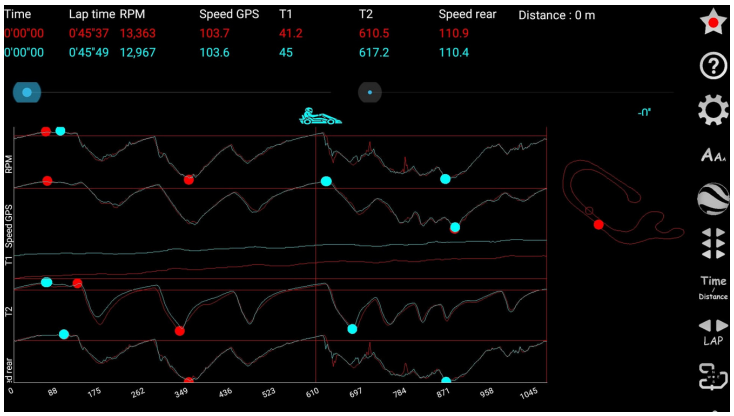
The Alfano 6 App



The icons shown to the right of each session allow you to:

- Delete session
- Share the session
- Place this session in your favorites
- Delete one or more sector(s) and offset the following
- Modify information about the session (circuit, driver, championship etc.)
- Consult the minima and maximas of your session
- Export your data in CSV format
- View weather information
- See the time of use of your engine
- Add setting information of your Karting

The Alfano 6 App



Using the "Data" button you can view your data graphically (and compare them if two or more sessions are selected).
On this page you will find several options in the side menu.

Using this button, you can configure the displayed analysis options:

Allows you to choose the channels to analyze and to set the graph

Allows you to choose the size of data display (only Android)

View your laps on Google Earth

Allows you to shift the samples of your lap

Allows to work in time scale or distance

Allows you to select / change your lap to analyze

Allows you to choose the display orientation of the track layout

Hides the track

Access the engine speed analysis menu

Acceleration Analysis Menu

Adds a filter to the gearbox

Access to the analysis menu of the gearbox

Allows access to the analysis menu of Min & Max sensors as well as partials

Access the speed analysis menu

Load or save your different analysis configurations

Access the comparison menu

Automatically scroll the cursor

Moves back the cursor

Moves the cursor forward

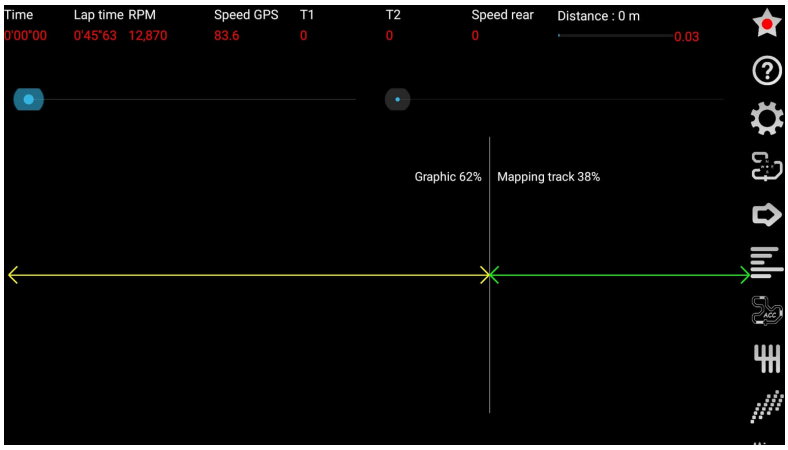
Adds a background grid

Allows you to change the background color

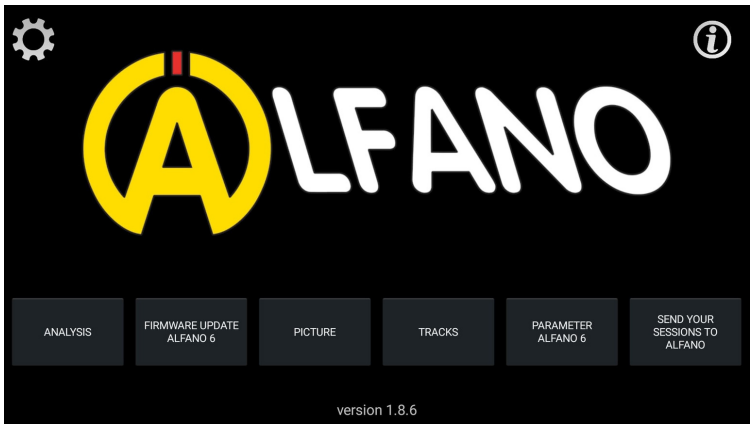
Provides access to the Virtual Partial Analysis menu

The Alfano 6 App

To customize your display, you can also hold your finger on the track in the right part of your screen and slide to configure the split between graph and Mapping



The home page also offers you the following actions:



Firmware update Alfano 6

This tab allows you to update your Alfano 6.

Picture

This tab allows you to import a picture that will appear when you turn on and off your Alfano 6.

Tracks

This tab allows you to consult the circuits available in the Alfano 6 database.
It also allows you to manage your circuits created in professional mode.

Parameters Alfano 6

This tab allows you to access, via the App, the same features as those included in the device. You can configure the various parameters related to your Karting (Transmission, RPM, LEDs, etc.) or the race display.

Send your sessions to Alfano

This tab allows you to send your sessions to Alfano S.A. This action allows us to integrate them into the company's database (including Track Database) and contributes to our research and development. You can also transmit this information via the button "Data Sharing" already mentioned.

Options

Cables

A4510
USB Charger Cable

A4520
USB Download Cable

Magnetic and Speed Sensors

A1302
Magnetic sensor 90cm

A2203
Speed Sensor 195cm

A4461
50mm ring
4 magnets
Speed sensor A2203

Motion Sensors

A2401
Steering Wheel Sensor

A2405
Pedal Sensor

Options

Hubs and Extensions

A3301
Extension "NTC"
135cm

A3401
Extension "K"
135cm

A2194
HUB
Mag-Speed
20cm

A2190
Extension
"NTC" + "K"
135cm

Temperatures

A2103
Water Sensor
"NTC"
M5 - 45cm

A2104
Sparkplug Sensor
"NTC"
14mm/45cm

A2151
Sensor "K"
Exhaust
40cm (PRO)

A2158
Sensor "K"
Exhaust
45cm (Standard)

A2155
Sensor "K"
Sparkplug
14mm/40cm

A2156
Sensor "K"
Sparkplug
12mm/40cm

A2157
Sensor "K"
Sparkplug
10mm/40cm

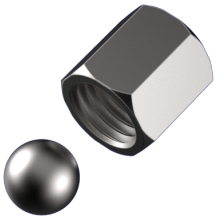
Options

Accessories

A561
Steering Wheel Cover

A576
Support TonyKart

A272A
Nut Sensor Exhaust
A2151 and A2158



A272B
Obturator for the 272A

A261
Hose Adapter for WATER Sensor
A2103 and A2152
17mm

The products represented here are the most requested but our entire range of products is available on our website:

www.alfano.com