

Competition system

digiCAN

**Competition's system
for Agility.**





Every product of DigiCAN's competition system has been designed thanks to the proposals that we have received from different Agility clubs.

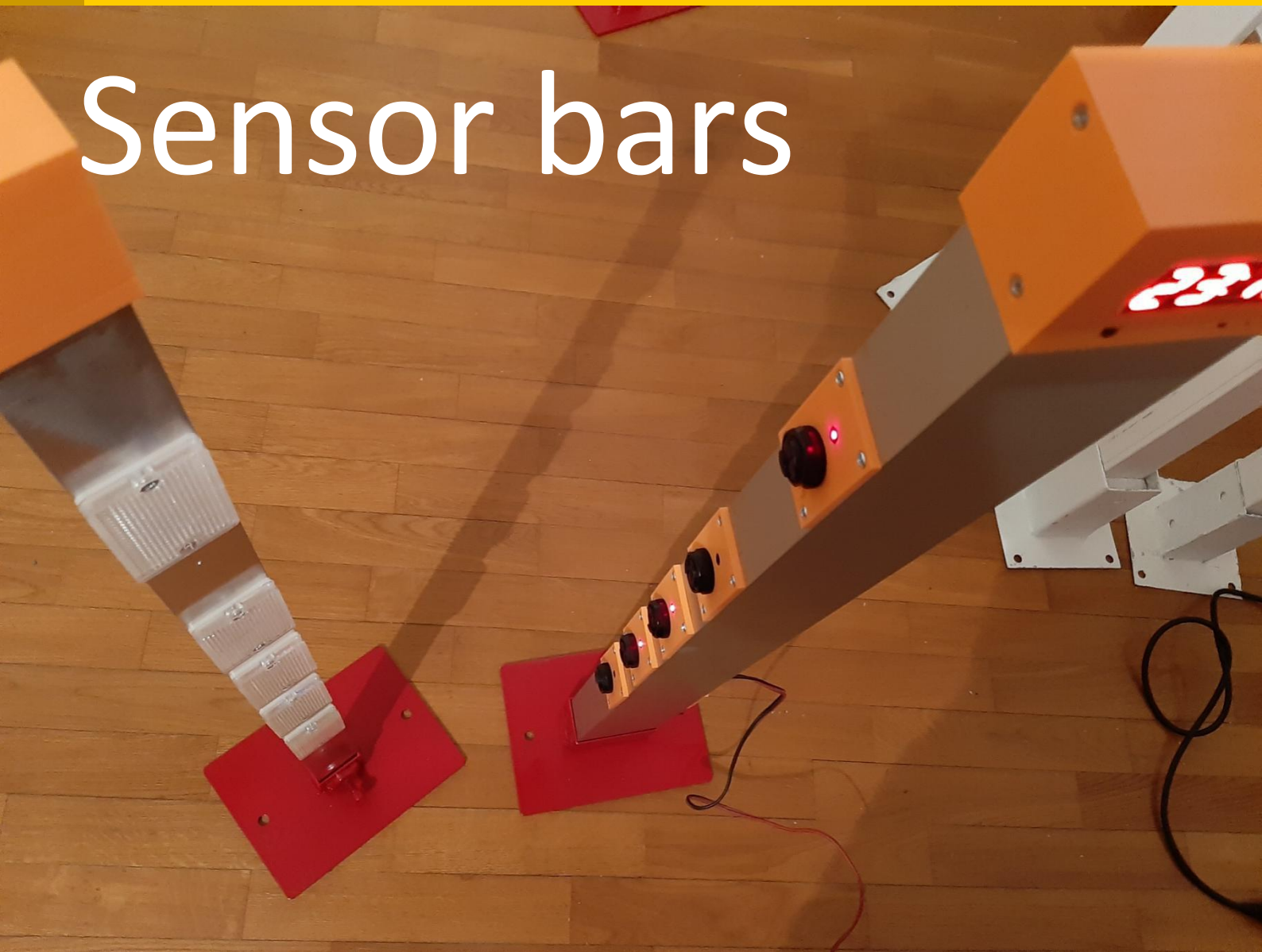
We have tested the system in different official competitions and we believe that it is ready.

We believe that we have achieved a simple system, reliable and with a strong structure , with possibilities of growing and being adapted to possible future developments

Thank you.



Sensor bars



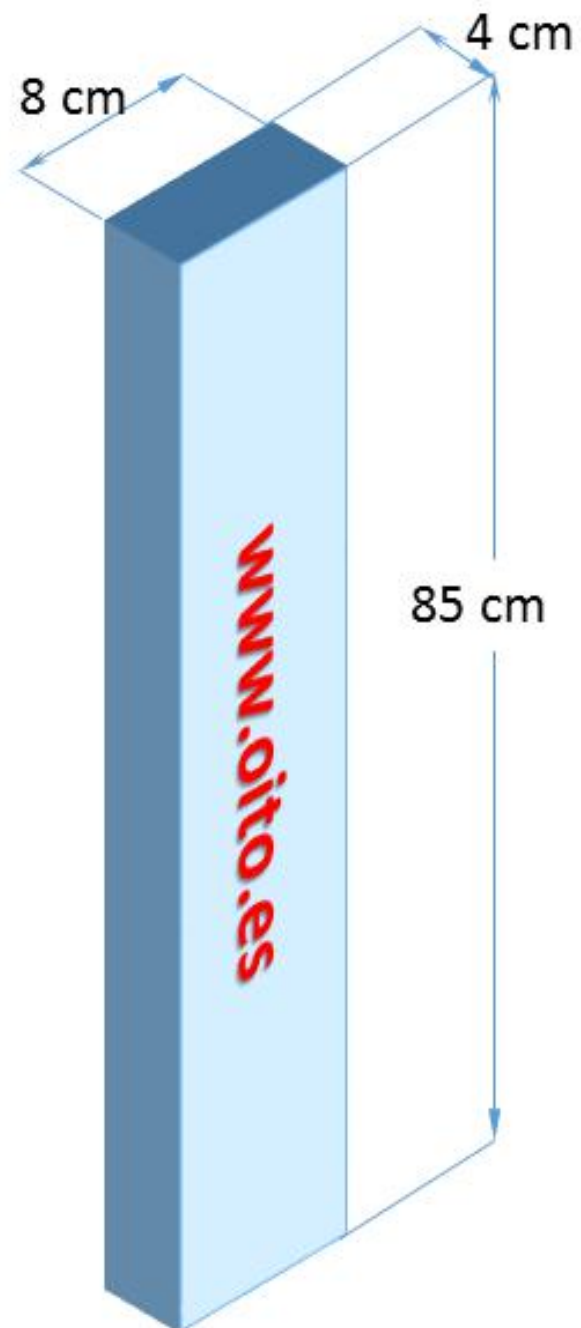
**Robustness
guaranteed**



With the aim of achieving a system that could be able to work even in unfavourable conditions and possible falls and hits, the whole electronic system of detection inside an aluminium structure, has been integrated with strong fasteners of each component to get the necessary robustness .

The height of the system is 85 centimetres. So, it could be under the maximum height of the fence and minimise every possible damage to dogs in case of falls.

Besides, due to the fact that the structures are hollow, they have a low weight, to protect the animals in case of hits.

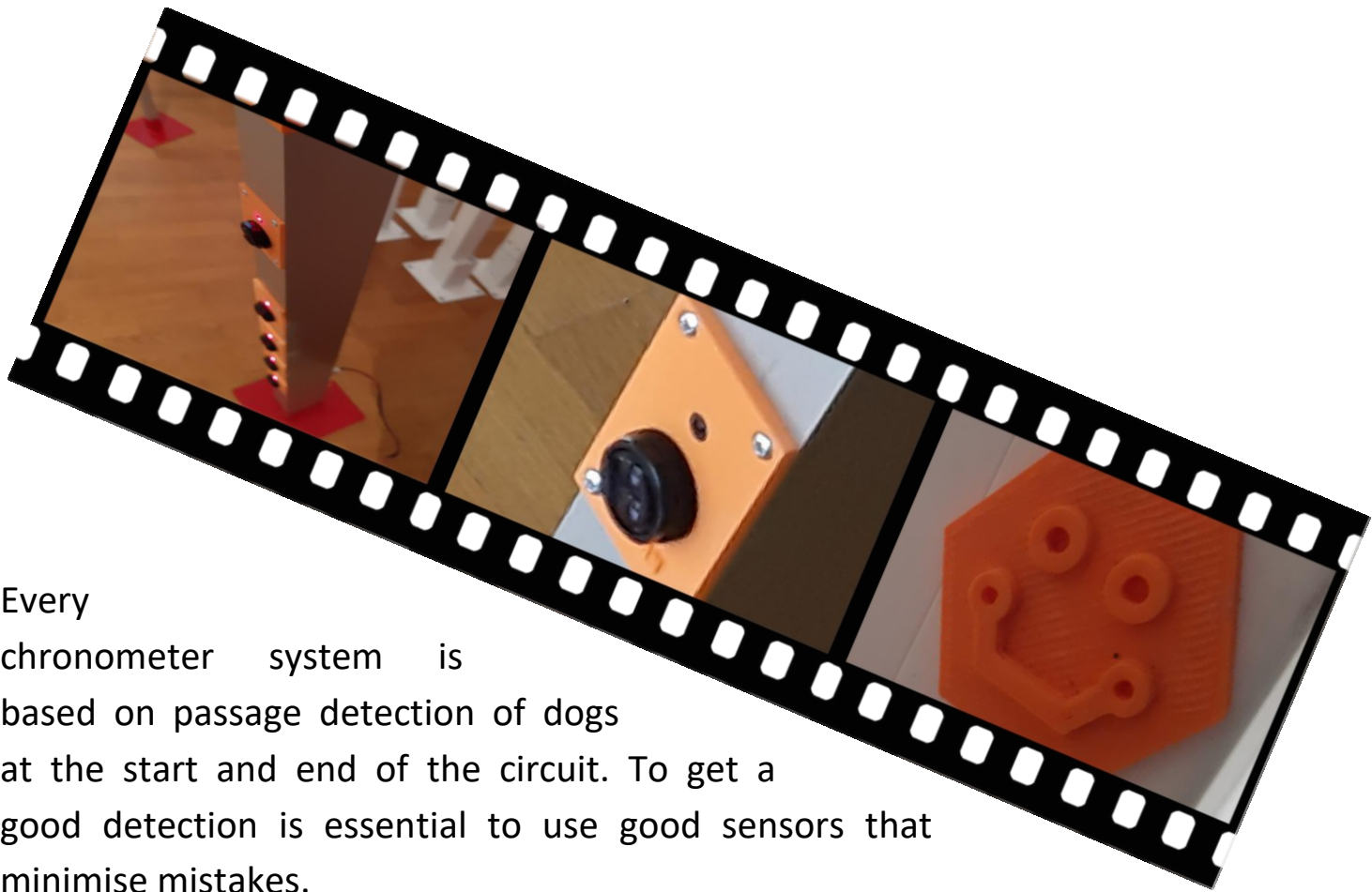


The system could be fastened to the fence or it could be used independently thanks to the iron brackets designed and fabricated specifically for DigiCAN.



Infrared rays sensors

Immediate detection



Every chronometer system is based on passage detection of dogs at the start and end of the circuit. To get a good detection is essential to use good sensors that minimise mistakes.

Every DigiCAN competition system uses industrial sensors also used in robotic systems of production chains. So, they are designed with immediate detection systems with 100% of reliability.

It is important to emphasise that they are electronic systems, without metallic contacts, so they are immune to the iron fastening systems and minimise every mistake related to the bad mechanical detection of other systems.

Every bar of the system has five sensors that covers every height for the mini, midi and standard categories.

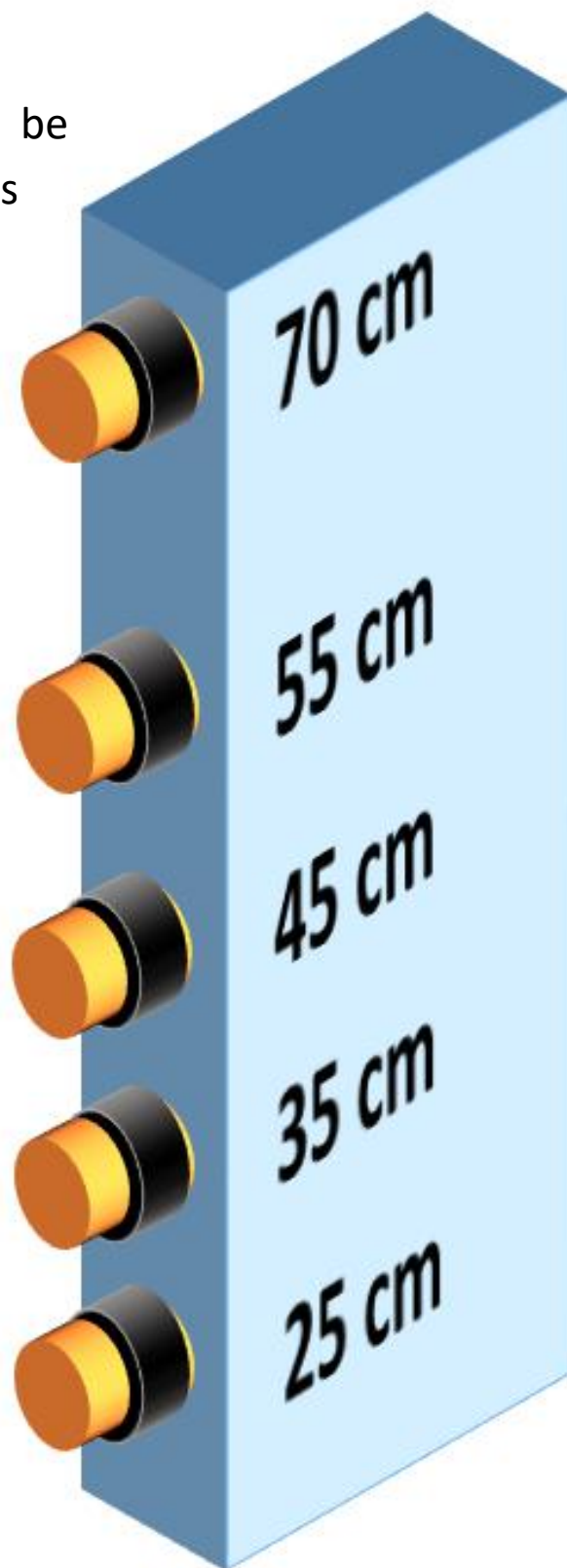
The height of the system's sensors has been designed according to the new regulations from each category. We have checked different dog's sizes and optimized the system to get almost 100% of success.



The passage detection could be at 25, 35, 45, 55 or 70 centimeters of height. We assure a reliable detection of every dog when they go through the start and finishing line.

Opposite to each sensor, there is a high sensibility reflector. Every sensor has a guard time of two seconds, so there is no risk of mistake.

This is how we assure that even using the system with dogs of different sizes, there will be no timing differences. The chronometer will always start or stop counting at the first passage detection.





The reflector system consists of an aluminium bar that is 85 centimeters high, 4 centimeters wide and 2 centimeter deep. This aluminium bar is lightweight and handy . Every reflector is bolted and colocated at the exact high needed for a good infra-red laser reflection.

It is important to emphasize that the distance between the reflectors is calculated in order to get an excellent detection. Also, every sensor is independent from the rest, and even with a simple cut beam the pertinent event of passage detection will be processed .



Led's Display



**Control of every score in
the same display**



Each bar has a LED display that allows you to know every passage timing without the need of an external scoreboard.

With this functionality, you will be able to train even if you don't have every component of our competition system.

Moreover, the visualization interface has a button to reset score to zero.



Every bar counts with a red led light that will appear when the number is higher than hundreds and a white led light that will emit a bright flash when it detects the passage or other event from the other elements of the system wirelessly.



Bars Holders



A good grip is needed to assure the bar's verticality and avoid mistakes produced by a bad alienation.

The base shown in the image is used for holding the sensor and the reflector's bar. It has the exact measurements of the bar tubes and there is one base for each bar.

So, due to the fact that every element has the same characteristics, there is no chance of an external vibration disturbing or producing false alarms.





External's antenna

Greater coverage



In the highest part of the bar, a connector for an external antenna has been included, that will allow us a better range, in order to be able to leave a greater distance between the bars, and a better detection of the passage.

With these items, we assure a good transmission and reception between the devices minimizing mistakes.

Also, the system can work independently if there is any transmission mistake, because each display from the sensor bar will record the passage timing.

The wireless system is suitable for every DigiCAN display. So, signals sent by the sensor bar could be received and visualized by the scoreboard, the control computer and the start and finish bars.





External battery connector

Battery external power



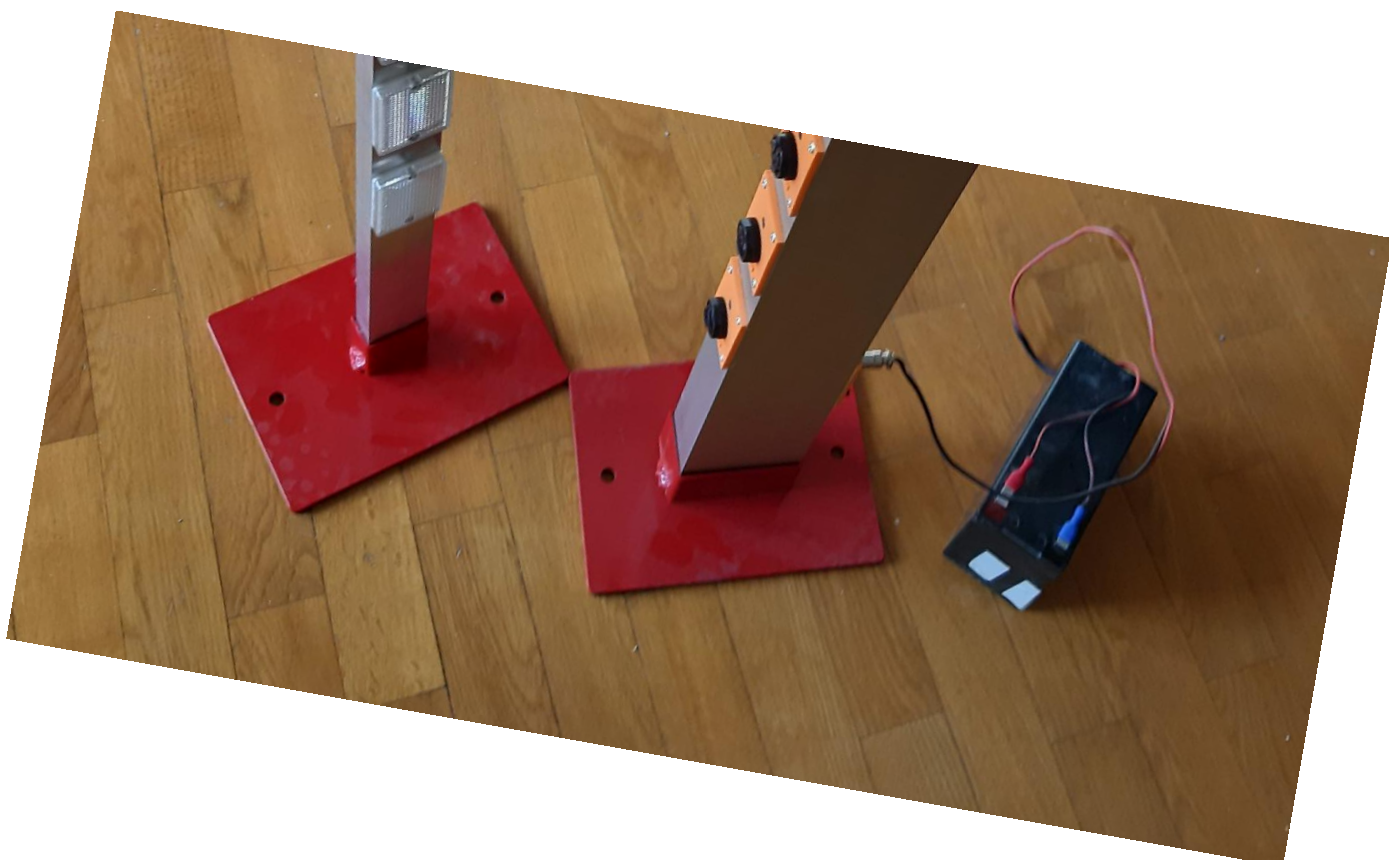
In the back of every sensor bar, we have included an input to be able to connect an external battery of 12 Volts that will power the system. By this way, we assure electricity supply for multiple days of competition.

The hardware used in this system is low power consumption and that is why we can assure 100% efficiency by using the batteries.

Even though you can use any type of battery, we recommend the usage of a maintenance free 12V 7Ah gel battery.

Batteries are not included in the DigiCAN system, but you can find a huge variety of them in different online webs and at competitive prices.

The power supply system includes a button that disconnects the batteries from the internal system.





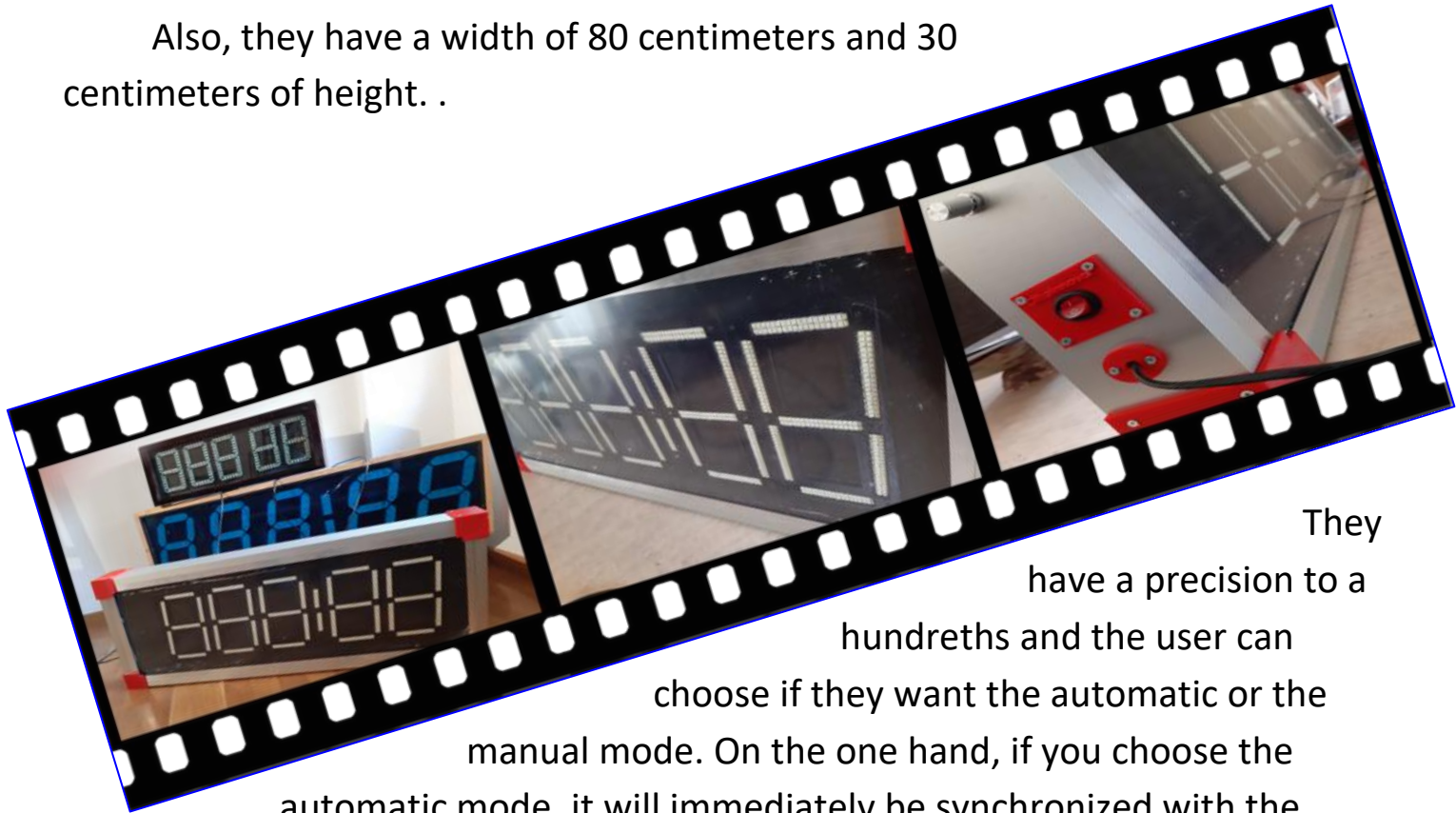
Scoreboard

Competition visualization



Scoreboards count with more than 1300 leds that contribute to a perfect visualization of the results sent by the DigiCAN system. They have five digits.

Also, they have a width of 80 centimeters and 30 centimeters of height. .



They have a precision to a hundredths and the user can choose if they want the automatic or the manual mode. On the one hand, if you choose the automatic mode, it will immediately be synchronized with the sensor bars by a communication system that minimizes every delay.

They are made of an aluminium frame and the leds are protected by methacrylate sheets..



We have included a potentiometer for the control of the intensity of the leds. This is how we can adapt the lights for indoor and night races, in order to reduce glares that could be annoying for the public and the animals.

On the other hand, if you choose the manual mode, you can use the DigiCAN PC-connection system. .



NEW

Alphanumeric scoreboard

Manual and automatic mode



We have created this new scoreboard model for those competitions in which there are not any automatic passage detection systems.

Those scoreboards can be used in both manual and automatic mode with the sensor bars.

In the manual mode, we have included four buttons that will work for the following functions:

Decrease-luminosity button

When you press this button, you will see on the scoreboard the level of luminosity. These levels range from 0 (when the display is off) to 255 (maximum luminosity). Every time you press this button, the luminosity will decrease by tens until values arrive to 10 (minimum luminosity).

Increase-luminosity button

Every time you press this button, luminosity will increase by tens until values arrive to 255.

START/STOP button:

When you press this button, the timing will start, and in the scoreboard you will be able to see seconds, tenths and hundredths. When you press this button again, the timing will stop and the final score will be shown.

Note: The chronometer has an energy saving function: when a period of inactivity of 30 seconds is detected, the screen will be switched off. But, when we press any button or when any person or animal passes through the sensors.

**RESET button:**

When you press this button, the score will be back to zero . And it will shown the digits: “000:00”

So, the timing could be in a manual way from the scoreboard, with none external device needed.

This new scoreboard is completely suitable with the rest of the devices of the DigiCAN system. It includes a wireless interface that could be controlled from both the control computer and bars and training sensors.



NEW

Control through a PC



We have joined the control of a remote control to the control through a personal computer. This little device can be connected through an USB cables to the computer in order to have a complete control and visualization through the specific software designed with Windows 10

Also, we added a rechargeable battery with a mobile phone charger to the usage as a remote control.

We incorporated three buttons that allow the functions of START, STOP and RESET, so this will work as a manual chronometer.



We consider this a good security system in case that competitions take place on days where there is a strong wind or rain, and the wireless sensors do not work. It can be connected and synchronize with scoreboards and the rest of digiCAN devices.