Steora ®

THE SMART BENCH

A new generation street bench

Global environmental circumstances call for concrete steps toward change in behaviour of urban citizens. Cities are overcrowded, and renewable energy and environmental protection have become the key economic and social challenges.

Street furniture is a simple entry point to a world of smart cities. A relatively simple looking product, but with vast usage potential, a solar powered bench comes with multiple functionalities – a wireless charging pad and charging ports for wired phones and other smart devices, night illumination, energy saving main controller, data collecting etc.

Our smart bench has in-built sensors for data collection and analysis, gathering information on, for example, the number of bench users, operability of various components, and atmospheric conditions. Additionally, bench owners can easily change settings on the dashboard.

With its simple design and convenient size, Steora can be installed anywhere, outdoors and indoors.

Why Steora?

Overall usage experience and feedback will serve as the basis for future development of smart solutions for digitalization in sustainable environments. Therefore, Steora is a perfect and unique Internet of Things (IoT) product for smart environments or smart cities.

When resolving the challenges of sustainability, we focus on the nexus between people, technology, and urban design. In order to facilitate the implementation of strategic enhancements to civic spaces for better living, we have created Steora, the most ingenious smart bench ever designed.
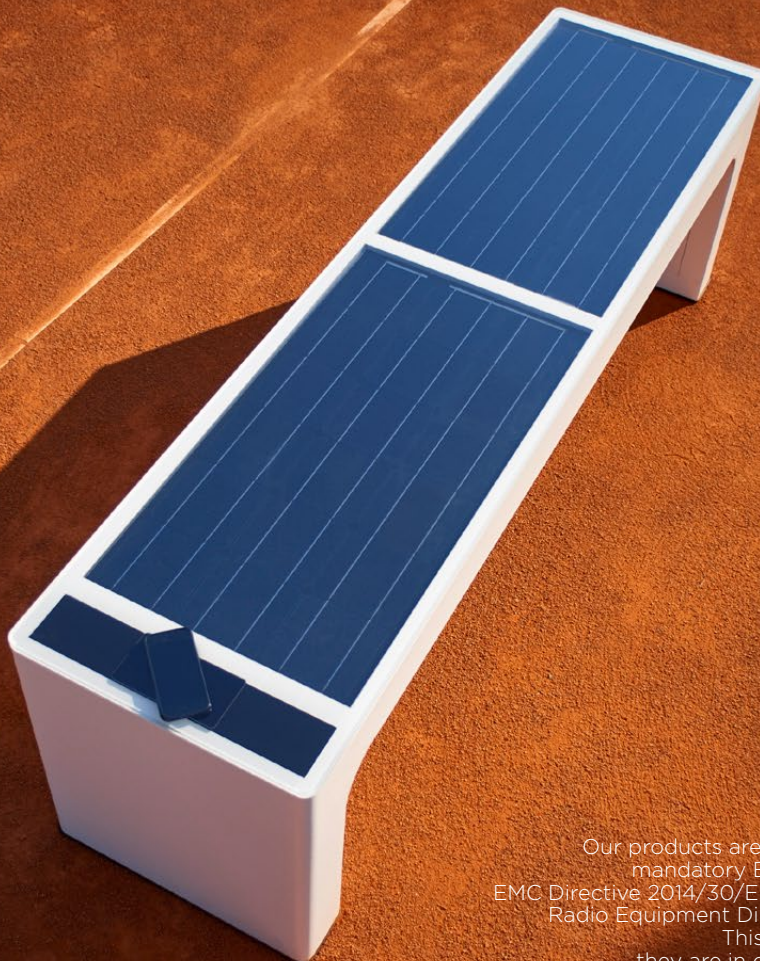
Our products are in accordance with mandatory European directives: EMC Directive 2014/30/EU, LVD 2014/35/EU, Radio Equipment Directive 2014/53/EU. This is a guarantee that they are in compliance with CE, and therefore completely safe for outdoor usage.

Steora STANDARD

Simplicity at its best

Steora Standard is the smart bench of choice in the world. It is designed for outdoor spaces exposed to plenty of sunlight, such as city squares, marinas or parks.

Steora Standard is 100% solar powered, and does not require any additional power supply or infrastructural changes.

The controller is specially developed to produce up to 30% more energy. In winter days, it monitors weather conditions and powers off the bench in case of bad weather.

With its simple, balanced design and convenient size, Steora can be installed to substitute regular street benches, bringing a touch of modern aesthetic to outdoor spaces together with solar-powered Wi-Fi hotspot and charging stations.

Lead production time:	**7 - 14 days**
Minimum order:	**1**
Available colors:	⬤ **Signal White** 🌈 **On request**

Construction
Dimensions: W: 178 cm; D: 45 cm; H: 50 cm. Weight: 88 kg

Photovoltaic modules
Monocrystalline / Total power: 110 W

Battery pack
Type: AGM / Capacity: 72 Ah

USB charging
Number of ports: 2
Power (per port): 5 W (1A)
Other: short circuit protection, LED light

Wireless charging
Power: 10 W / Efficiency: up to 70%

Internet technology
4G LTE / Speed: up to 150 Mbps / Range: 4 – 20 meters
Other: custom SSID, user and web page restriction, custom homepage...

Sensors
Temperature (-45 °C, + 60 °C)
Humidity (0% – 100%)
Device charging counters (cable and wireless)
Energy production & consumption
Internet connections counter & data traffic usage
Battery status
Rain sensor - powers the bench off in case of heavy rain
System sensor - analyses every device inside the bench

Cooling system
Type: air cooling / Number of fans: 4
Air flow: 370 m³/h
Temperature trigger: 35°C

Ambient light
Range: 2 meters
Color: White

Steora HYBRID

Feel the power

Steora Hybrid is a powerful model which includes all the functionalities of Steora Standard with an addition of integrated AC charging module.

It is mainly designed for use in countries with less sunlight during winter days. Combining the energy from solar panels and AC grid power, the bench retains all its functions throughout all the seasons, adapting to outside conditions.

Grid power is mostly used during lower insolation days. When the solar battery charge drops below 30%, AC module switches on to quickly recharge the battery system.

Since it can draw power from the AC grid, Steora Hybrid offers additional features such as seat heating, or powering other devices in its vicinity.

Lead production time: **7 - 14 days**

Minimum order: **1**

Available colors: **Signal White**   **On request**

Construction
Dimensions: W: 178 cm; D: 45 cm; H: 50 cm. Weight: 88 kg

Photovoltaic modules
Monocrystalline / Total power: 110 W

Battery pack
Type: AGM / Capacity: 72 Ah

USB charging
Number of ports: 2
Power (per port): 5W (1A)
Other: short circuit protection, LED light

Wireless charging
Power: 10 W / Efficiency: up to 70%

Internet technology
4G LTE / Speed: up to 150 Mbps / Range: 4 – 20 meters
Other: custom SSID, user and web page restriction, custom homepage...

Sensors
Temperature (-45 °C, + 60 °C)
Humidity (0% – 100%)
Device charging counters (cable and wireless)
Energy production & consumption
Internet connections counter & data traffic usage
Battery status
Rain sensor - powers the bench off in case of heavy rain
System sensor - analyses every device inside the bench

Cooling system
Type: air cooling / Number of fans: 4
Air flow: 370 m³/h
Temperature trigger: 35 °C

Ambient light
Range: 2 meters
Color: White

AC grid connector
Supply voltage: 230V AC
Power: 150 W

Steora URBAN

The future - now

Steora Urban is the first street bench ever with a built-in LCD display.

Since it is designed to employ both solar power and AC grid power, Steora Urban is a perfect fit for low-light locations, and indoor usage in highly frequented areas.

19" LCD display on Steora Urban can be used for broadcasting city news, announcements, pictures, or any piece of information of public interest.

Using our advanced software with simple user interface (UI), users can easily upload various content, and set parameters for duration and frequency for each bench.

Steora Urban requires AC grid power for 24/7 operation.

Lead production time: **up to 30 days**

Minimum order: **1**

Available colors: ● **Signal White**   ● **On request**

Construction
Dimensions: W: 178 cm; D: 45 cm; H: 50 cm. Weight: 88 kg

Photovoltaic modules
Monocrystalline / Total power: 110 W

Battery pack
Type: AGM / Capacity: 72 Ah

USB charging
Numero porti: 2
Number of ports: 2 / Power (per port): 5W (1A)
Other: short circuit protection, LED light

Wireless charging
Power: 10 W / Efficiency: up to 70%

Internet technology
4G LTE / Speed: up to 150Mbps / Range: 4 – 20 meters
Other: custom SSID, user and web page restriction, custom homepage...

Sensors
Temperature (-45 °C, + 60 °C)
Humidity (0% – 100%)
Device charging counters (cable and wireless)
Energy production & consumption
Internet connections counter & data traffic usage
Battery status
Rain sensor -powers the bench off in case of heavy rain
System sensor - analyses every device inside the bench

Cooling system
Type: air cooling / Number of fans: 4
Air flow: 370 m^3/h / Temperature trigger: 35 °C

Ambient light
Range: 2 meters / Color: White

AC grid connector
Supply voltage: 230V AC / Power: 150 W

LCD Display
Size 19" / 250 cd/sqm

Clear throughout the day.

☀ 12.5°C

Precipitation: 0 %
Max.: 17.7 °C
Wind: 12 km/h ↙
Visibility: 10 km
Humidity: 67 %

THU ☀ 18°C
Mostly cloudy starting in the afternoon.
MIN.: 8 °C
Precip.: 0 %
Wind: 3 km/h ↗

FRI ⛅ 16°C
Mostly cloudy until evening.
MIN.: 11 °C
Precip.: 28 %
Wind: 8 km/h ↗

SAT ⛅ 17°C
Partly cloudy starting in the afternoon.
MIN.: 10 °C
Precip.: 3 %
Wind: 3 km/h ↙

Steora.com

Steora URBAN+

The world within reach

Steora Urban+ is the most advanced street bench in the world. It is designed for use in highly frequented areas such as city streets, squares and other buzzing locations.

The signature feature of Steora Urban+ is the 19" super-bright LCD display, which can be used for showing ads, videos, pictures, or various information to the public (e.g. weather report).

Thanks to advanced software, users can easily upload videos or pictures to benches of their choice, and set campaign duration and frequency.

Video campaigns can also be connected to a Wi-Fi homepage, allowing bench users to view the same campaign on their smartphones.

Steora Urban+ requires AC grid power for 24/7 operation.

Lead production time: **up to 90 days**

Minimum order: **1**

Available colors: **Signal White** / **On request**

Construction
Dimensions: W: 178 cm; D: 45 cm; H: 50 cm. Weight: 88 kg

Photovoltaic modules
Monocrystalline / Total power: 110 W

Battery pack
Type: AGM / Capacity: 72 Ah

USB charging
Number of ports: 2 / Power (per port): 5W (1A)
Other: short circuit protection, LED light

Wireless charging
Power: 10 W / Efficiency: up to 70%

Internet technology
4G LTE / Speed: up to 150 Mbps / Range: 4 – 20 meters
Other: custom SSID, user and web page restriction, custom homepage...

Sensors
Temperature (-45 °C, + 60 °C)
Humidity (0% – 100%)
Device charging counters (cable and wireless)
Energy production & consumption
Internet connections counter & data traffic usage
Battery status
Rain sensor - powers the bench off in case of heavy rain
System sensor - analyses every device inside the bench

Cooling system
Type: air cooling / Number of fans: 4
Air flow: 370 m³/h / Temperature trigger: 35 °C

Ambient light
Range: 2 meters / Color: White

AC grid connector
Supply voltage: 230 V AC / Power: 150 W

Camera
Night recording: Yes

Super-bright display
Size 19" / 1000 cd/sqm

Steora CCTV

The future of urban security

Steora CCTV is developed to improve the safety of public spaces.

Combining smart tech for safer environments, it is intended for all locations which call for a higher level of security and public surveillance. Steora CCTV is equipped with 4 cameras, one on each side of the bench, creating 360° live stream.

The cameras also have night recording function with integrated infrared light.

Live stream is then available online, as well as an API for integration in any other website, or for recording on the NVR.

The bench is weather-resistant and vandal-resistant. Steora CCTV requires AC grid power for 24/7 operation.

Options for configuring Steora CCTV bench:

1. Access to live streaming and recordings through the Dashboard (Ethernet or optic fibre connection) + HDD storage inside the bench

2. Live stream exclusively through the Dashboard, no video storage on HDD (there is no HDD inside the bench)

3. Video material is stored on HDD inside the bench, no access to the recorded material or live stream through the Dashboard

Lead production time: **up to 60 days**

Minimum order: **1**

Available colors:　◯ Signal White　🌈 On request

Construction
Dimensions: W: 178 cm; D: 45 cm; H: 50 cm. Weight: 88 kg

Photovoltaic modules
Monocrystalline / Total power: 110 W

Battery pack
Type: AGM / Capacity: 72 Ah

USB charging
Number of ports: 2
Power (per port): 5 W (1A)
Other: short circuit protection, LED light

Wireless charging
Power: 10 W / Efficiency: up to 70%

Internet technology
4G LTE / Speed: up to 150 Mbps / Range: 4 – 20 meters
Other: custom SSID, user and web page restriction, custom homepage...

Sensors
Temperature (-45°C, + 60°C)
Humidity (0% – 100%)
Device charging counters (cable and wireless)
Energy production & consumption
Internet connections counter & data traffic usage
Battery status
Rain sensor - powers the bench off in case of heavy rain
System sensor - analyses every device inside the bench

Cooling system
Type: air cooling / Number of fans: 4
Air flow: 370 m³/h
Temperature trigger: 35 °C

Ambient light
Range: 2 meters
Color: White

AC grid connector
Supply voltage: 230 V AC
Power: 150 W

Camera
Night recording: Yes
Angle: 360°

include

DASHBOARD

Home

Steora

CCTV

Insolation

Advertising

Location	Solin
Bench owner	Include
Is Active	●

Temperature: 27.8 ˚C
Humidity: 52,9 %

Recorded Events   View Camera Info

Recorded Events   View Camera Info

Recorded Events   View Camera Info

Recorded Events   View Camera Info

Welcome,
ivanmrvosh
hr | en | es | de | it | fr

OFFLINE CHAT

Steora E

Power up & connect

Steora E is the only bench in Steora family without PV modules.

It is designed for indoor usage at highly frequented locations such as transit stations (bus stops, metro or train stations), shopping centers or airports.

Steora E offers the same functionalities as Steora Standard model.

Elegant design of the seating plate is achieved by combining black acrylic glass cover with integrated wireless charger.

Steora E requires AC grid power for 24/7 operation.

Lead production time: **7 - 14 days**

Minimum order: **1**

Available colors: ● Signal White   ● On request

Construction
Dimensions: W: 178 cm; D: 45 cm; H: 50 cm. Weight: 58 kg

USB charging
Number of ports: 2
Power (per port): 5 W (1A)
Other: short circuit protection, LED light

Wireless charging
Power: 10 W / Efficiency: up to 70%

Internet technology
4G LTE / Speed: up to 150 Mbps / Range: 4 – 20 meters
Other: custom SSID, user and web page restriction, custom homepage...

Sensors
Temperature (-45 °C, + 60 °C)
Humidity (0% – 100%)
Device charging counters (cable and wireless)
Energy consumption
Internet connections counter & data traffic usage
System sensor - analyses every device inside the bench

Cooling system
Type: air cooling / Number of fans: 4
Air flow: 370 m³/h
Temperature trigger: 35 °C

Ambient light
Range: 2 meters
Color: White

AC grid connector
Supply voltage: 230 V AC
Power: 150 W

24/7 Dashboard

Steora's dashboard is actually the brain of the bench.

Once they purchase Steora, our customers get their personal profile on Include's web based dashboard. At any time, from any location, Steora owners can get fresh data feed from their benches to learn about their current status. This is a feature that makes Steora smart bench more advanced than any other similar product on the market.

The dashboard performs the following functions:

- overview of all locations where Steora benches are installed,

- reporting information on the number of charged devices,

- the number of Wi-Fi users and their internet consumption,

- remote control of internet access (including changing passwords),

- remote control of ambient lights and charging signal lights (including setting times to turn the lights on and o automatically),

- and providing weather info like a mini meteo station (measuring humidity, temperature, and precipitation in the area).

include

DASHBOARD

Home

Buyers

Benches

Insolation

Advertising

Welcome,
ivanmrvosh
hr | en | es | de | it | fr

Location	Solin	Temperature:	27.8 ˚C
Bench owner	Include	Humidity:	52,9 %
Is Active	●		

Usage summary

Select date range:

From 📅   To 📅

| 2.984 | 2.225 | 306 | 36 | 560 | 13470 |
| Solar produced kWh | Consumed kWh | USB charging | Wireless Charging | Wi-Fi users | Internet data usage [MB] |

Last Report: Oct 15, 2018 7:58:00

Select chart to show

☐ Solar power   ☑ Battery Voltage   ☐ Internet user count   ☑ Charging counter   ☐ Monthly usage
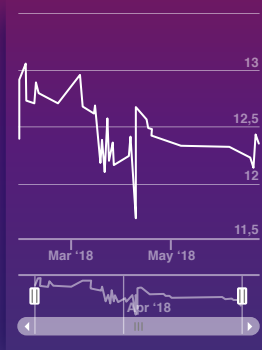
☑ Weather   ☐ Battery status   ☐ Grid power

Battery Voltage

Usb and Wireless charging counter
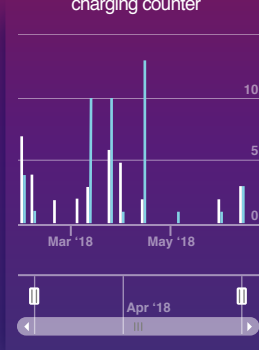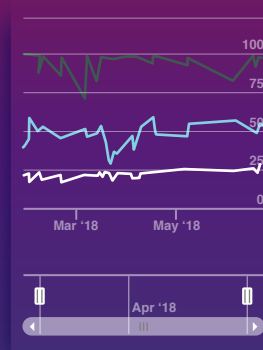
Weather

OFFLINE CHAT

Additional options

Extra wireless charger
Additional wireless charging pad with Qi
wireless charging technology
Bench models: All
Minimum quantity: 1 pc

Seat heating system
Heaters integrated in the seating plate able to
raise temperature to 35°C
Bench models: All except Standard
Minimum quantity: 1 pc

Optical fiber connection
Equipment inside the bench for connecting
optical fiber cable
Bench models: All
Minimum quantity: 1 pc

Sound system
Audiovisual reproduction system
Bench models: Urban, Urban+
Minimum quantity: 1 pc

Bicycle rack
Single bike rack installed on demand
Bench models: All
Minimum quantity: 1 pc

Radio system
DVBT stream radio stations with pre-defined
frequency - motion sensor activation
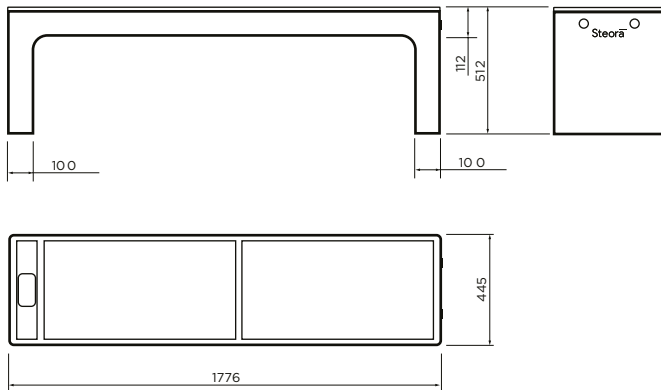Bench models: All
Minimum quantity: 1 pc

Steorā

Steora ®

	Photovoltaic Modules	Battery pack	USB charging	Wireless Charging	Wi-fi Hotspot	Environmental Sensors	Cooling System	Ambient Light	AC grid connector	Camera	Display
STANDARD	●	●	●	●	●	●	●	●			
HYBRID	●	●	●	●	●	●	●	●	●		
URBAN	●	●	●	●	●	●	●	●	●		●
URBAN+	●	●	●	●	●	●	●	●	●	●	●
CCTV	●	●	●	●	●	●	●	●	●	●	
E			●	●	●	●	●	●	●		

FAQ

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Steora
445
1776

How come the bench does not have a back rest?
Our bench was designed to fit seamlessly into any environment, and allow seating from all sides. A back rest would disrupt this concept and potentially create problems with charging since shadowing negatively affects the energy yield of PV modules.

How many days can Steora work without sunlight?
This depends on several factors such as the number of bench users, amount of sun and clouds in the course of a day, etc. Usually, Steora can function normally up to 5 days without direct sun exposure, before the primary functions start to power off to save the battery. USB charging ports are the last to shut down.

How long does it take to fully charge a phone device?
Charging time depends on charging type and smartphone model. When using wireless charger, it usually takes up to 90 minutes to fully charge a device, as the technology is still in development phase. Charging speed when using USB ports is usually between 1 and 1.8% of battery per 1 minute. Charging speed also depends on whether the smartphone is in use while charging, or in the stand-by mode.

What is the difference between Urban and Urban+ smart bench?
The main difference is in type and quality of display. Steora Urban+,has five times brighter display, and is meant for outdoor advertising; Steora Urban is a better fit for indoor advertising.

How long does it take for a bench to be fully charged?
In summer days, Steora can charge its battery system within 1 day, while in winter this can take up to 10 days. That is why Steora is mostly in standby mode during winter (this refers only to Steora Standard, as all other models are AC grid connected and maintain full functionality throughout the year).

What surface should the bench be installed on?
Steora has to be installed on a solid surface – concrete, asphalt or stone. The surface needs to be at least 10 cm deep. In case of Steora Standard, the bench location has to be directly exposed to sunshine.

We create amazing technology products.
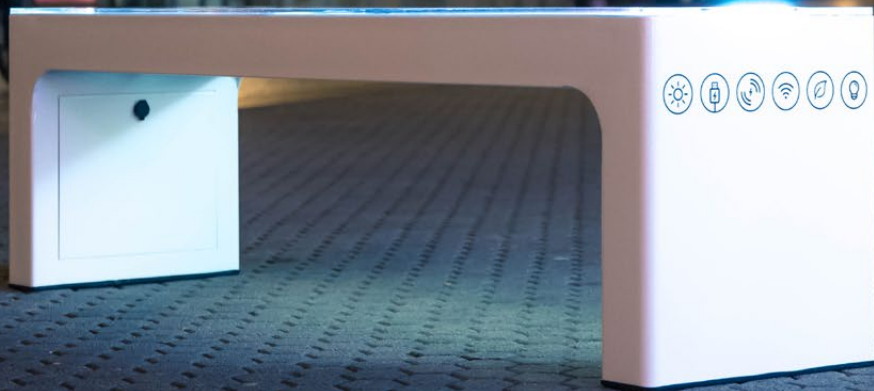
We are Include.

A European hardware company, founded by young innovator Ivan Mrvoš, we earned recognition following a large investment in 2017, quickly becoming one of the best producers of smart street furniture in Europe.

Based in Solin, Croatia, in a 2000 m² facility with 35 highly educated employees, we are recognized as a serious development IoT platform, growing rapidly in terms of company size, sales volume and global reach.

With global footprint of more than 800 benches on 40 markets around the world, we are involved in major 'Smart city' projects, and have made our presence known in 250 cities and municipalities across 5 continents.

Our highly skilled R&D team works on development of both hardware and software solutions, which in effect means we have the capability to develop any IoT, or solar powered solution for smart cities.

Our supply channels, in combination with production department, sales and customer care unit, can respond quickly and deliver even the most complex solutions of the highest quality to our customers.

We believe that technology is a driver of equality and inclusion. Our mission is to find undiscovered potential around us, and use it to create amazing technology products, designed to improve lives of urban users.

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Steora ®

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