



RAYVOLT



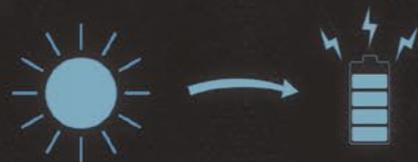
*Catalogue*

# THE RAYVOLUTION

The Rayvolt philosophy is to promote alternative transportation by offering our customers a clean, high-tech, and stylish way to commute.

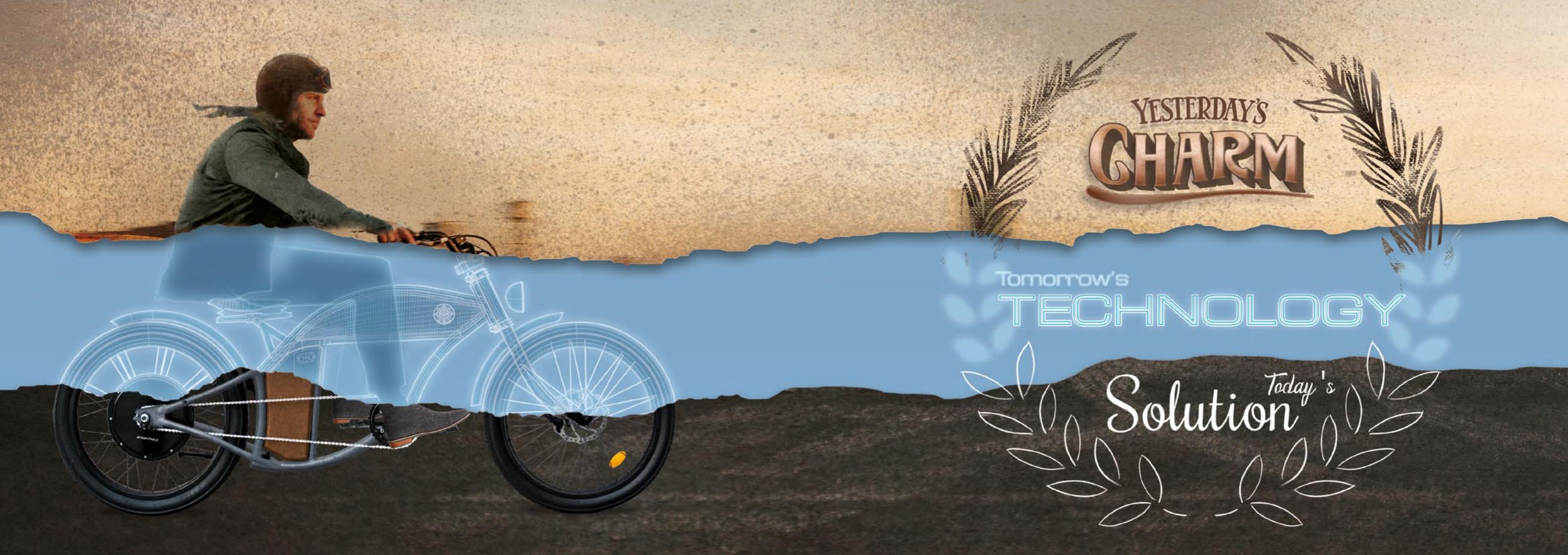
The name comes from the Sun's rays and the electrical unit Volt. Put together, sounds like its homonym "revolt".

**The Sun's rays, the voltage and the revolutionary spirit are the fundamentals behind our brand.**



IT'S TIME TO BREAK THE CHAINS  
**FEEL THE FREEDOM**  
OF ALTERNATIVE COMMUTING





YESTERDAY'S  
**CHARM**

Tomorrow's  
**TECHNOLOGY**

Today's  
*Solution*

# Cruzer

## TIMELESS DESIGN

The original Rayvolt model, The Cruzer, was influenced by the first era of motorcycle from early 1900, the counter rock culture of 1960's Cafe Racer with a twist of California Beach Cruiser. This unique design combined with smart technology (EIVA) and state of the art BLDC motor stands out from the crowd.

**A timeless piece of transportation.**





*Peewee*

COLOR AND TRIM

Get your custom color



Clockwork  
**Orange**



British Racing  
**Green**



GUN METAL  
**GREY**

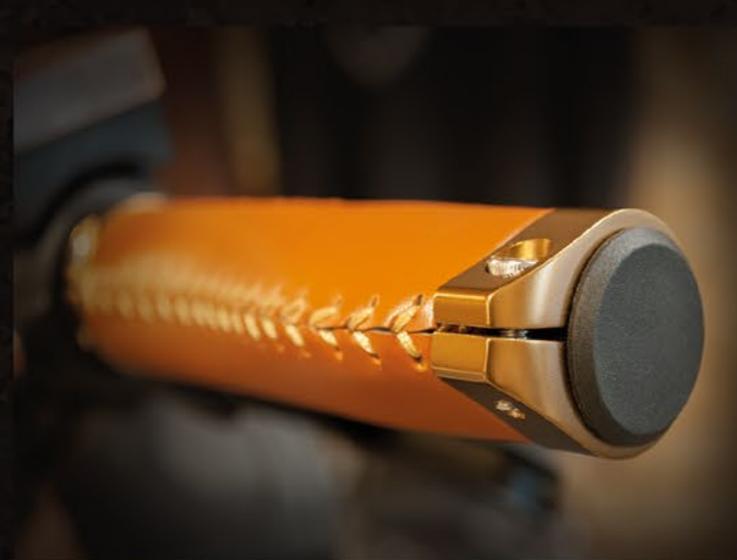




# TORINO

## THE GETAWAY BIKE

The Torino is a variation of our flagship model, the Cruiser. While still keeping the curved and powerful look of the frame, it has a sportier design; The look of a Cruiser with a more ergonomic geometry. Its sleek wide tires, compact profile and low center of gravity make this bike an ultra high-performing, City Carving Speedster. It's strong and aggressive profile, with hump-backed tubing, is reminiscent of the shape of a young bull, or "taurus" in Latin; that's why it's called the Torino.



# TORINO

COLOR AND TRIM



Get your custom color

pearl WHITE



GRAPHENE  
grey



electric  
green

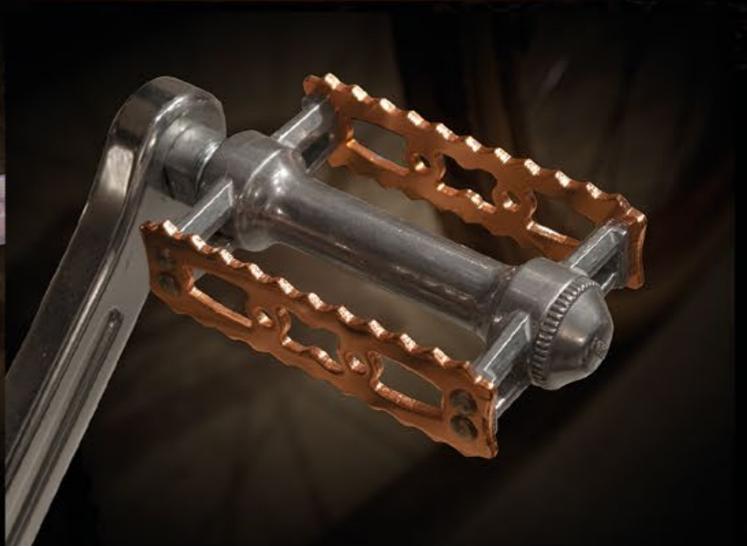


# Ambassador

## Neoclassic Spirit

Classic, yet far from conventional. Ambassador is the most aristocratic aesthetics bike that Rayvolt has designed to date. Delicately strong, this model combines a retro and neoclassical look with a focus on the details. This puts the bike in a class of its own that offers the perfect product for users who like traditional bicycles.





# Ambassador

COLOR AND TRIM

ROYAL BLUE



British Green



Burgundy Wine





# Clubman

## Live the city

A compact and urban bike that combines sport and refined style. For those who love the streets and the night. A comfortable vehicle for life in the city.



# Clubman

COLOR AND TRIM

**Black Shadow**



**British Green**



# Beachin'

*Wild and adventurous*

The Beachin' is Rayvolt's adventure bike. A large and muscle bicycle for the beach lovers. Its size and big wheels are perfect for riding through sand or on dirt roads. Despite its dimensions, it remains a stable and manageable bike.





# Beachin'

COLOR AND TRIM

*Vintage Green*



*Laguna Blue*



# The Trixie

## Enjoy your daily life

This is the idea that sparked the Rayvolution; how do you combine a bike (the ultimate vehicle in an urban environment) with carrying young children around the city, and transporting other items, like shopping? This stylish vintage-looking, Cargo Tricycle allows you to safely carry 3 children, or an adult and a child, as well as all your groceries. Its low center of gravity allows the bike to safely turn at speed unlike its competitors.

With comfortable vintage leather, child seat belts and isofit fittings to “lock in” baby carriers, this bike has everything needed for transporting your family in comfort. This bike combines a great vintage look with the latest smart technology.





# The Trixie



## COLOR AND TRIM

*Latte White*



*Rose Pink*



*Tila Green*





# Ringo

## *The Street Cowboy*

Off-Road yet urban. Compact but generous. Vintage yet modern. Ringo is a stylish post-apocalyptic looking compact bike, made for the city and the road with an all terrain versatility. This practical two-seater bike has a head-spinner look, that will let you be the eye-catcher of the road, while riding with someone on the back. This bike combines a great look, a comfortable position, and the features of all the latest Rayvolt smart technology.



# Ringo

COLOR *and* TRIM

RAW  
SILVER



CLOCKWORK  
ORANGE



SHADOW  
BLACK



# Tomorrow's TECHNOLOGY



The EIVA is Rayvolt's custom designed software which is used to control, customize, and monitor your bike.  
The EIVA computer can be mounted to the handle bars and is ready to go when you are. The app can be downloaded for use on an existing smartphone.

## 1. 360 Display

Monitor speed, battery state, MPH/KM Run & essential bike specs

## 2. Bluetooth

Monitor the connection between the bike and Eiva®

## 3. iPas Monitoring

Adjust your pedal assistance

## 4. Settings

Advanced configurations  
Technical Support Chat: Talk to a live agent for support on the go

## 5. Music

Play your music, your way

## 6. Maps

GPS access

## 7. Information

Display Help



**EIVA**    
**App**

Available for iOS & Android



GPS



WIFI



BEACON



IoT



RAYTRACK

# Technical Support

## Cloud based



Using **Raytrack**, you can check your bike's location in real time from your mobile device, anywhere in the world.

Raytrack uses GPS, GSM and surrounding Wifi IPs to track the bike's location.

When the bike is within 20 meter range, Raytrack uses bluetooth for short-range communication, that will display distance as a percentage as you approach the bike's pinpointed location.

Having issues configuring my iPAS.

Please allow me to connect to your device and tune it.

Sure, fantastic.

Done, your iPAS was disabled in settings. I turned it on for you.

Works great now! Thanks.

**Live Support directly from your EIVA device**

**Need assistance?**

Chat Live with our dedicated Rayvolt Technical Support Team directly from your connected EIVA device.

Remote access allows the Technical Support Team to connect to your Rayvolt for help with settings or troubleshooting.

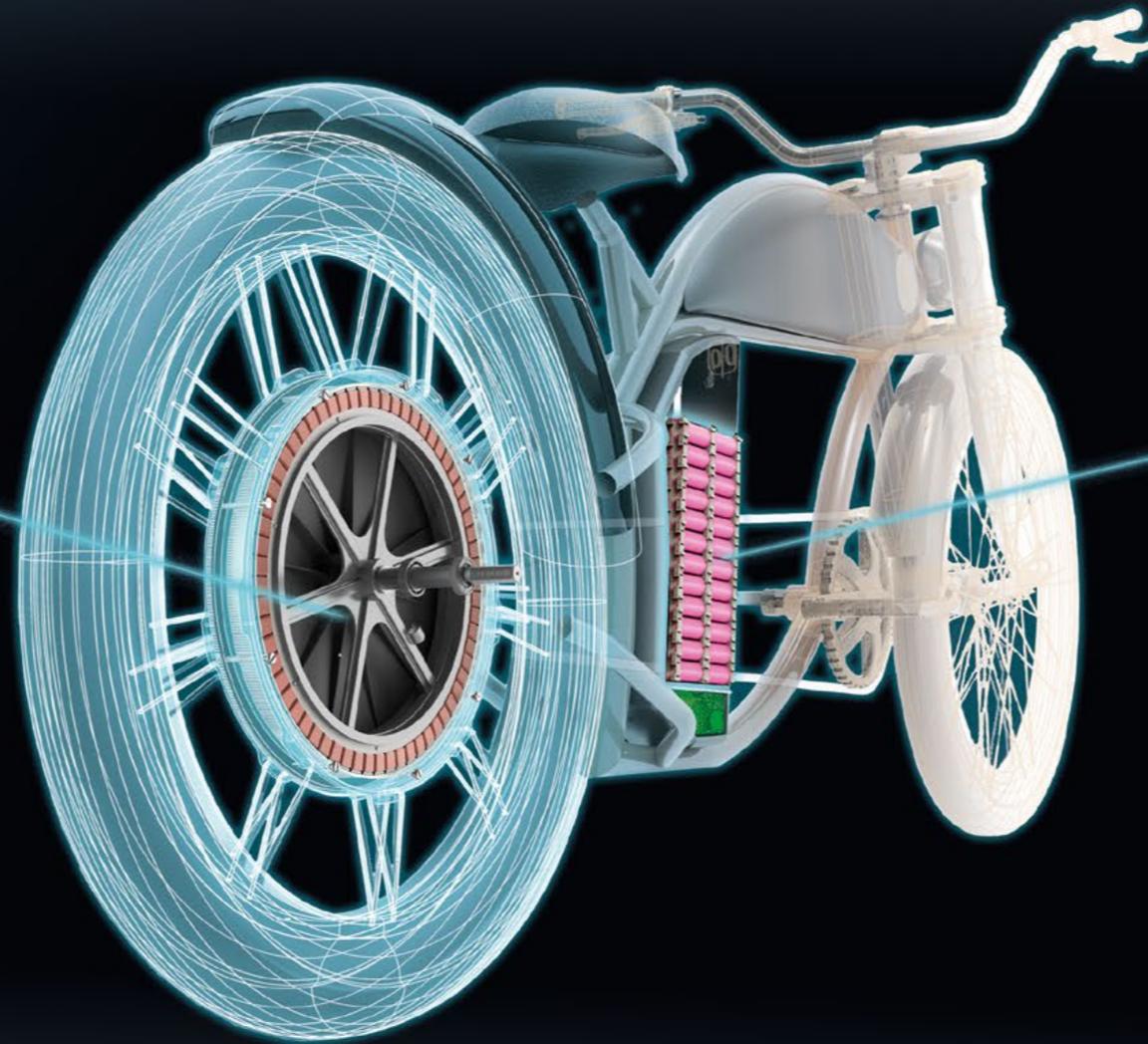
# The MOTOR

Rayvolt hubs are a complex brushless 3 phase dc motor comprising of 48 different copper coils and magnets that are placed on the outermost perimeter of the motor for the best possible torque.

The controller receives heat and position data from the coils and within one millisecond computes where to put the next load.

Such accuracy produces a Pure Sine Wave (PSW) current, offering unmatched ride comfort:

- More Acceleration**
- More Torque**
- More Response**
- Less Noise**
- Less Vibration**
- Less Consumption**



# The BATTERY



At the core of any electric vehicle, its performance and life expectancy are directly linked to the type of cell used. The capacity of the battery pack also depends on the amount of cells used. Rayvolt uses 13 cells in a series to reach a nominal voltage of 48V. At peak voltage, a full charge of 54.6V gives incredible power.

We use a minimum of 4 cells in parallel (52 cells in total) or 8 cells in parallel (104 Cells in total). This gives an unmatched capacity of 550Wh and 1100Wh - most of the industry uses 300 to 360Wh.

Battery quality is linked to how the cells are packed and used. Using a state-of-the-art battery management system in our packs, each cell is connected to it before delivering the charge. This high-tech design balances the charge between each cell and can cut the connection in case of a short circuit. This ensures best possible performance while making the battery safer.

# SMART FEATURES



AI adapts to cycling environment with **Gyrosensor**



**Intelligent Pedal Assist** with multiple choices

Power assistance with gyroscope hill detection

Motor aid self adjust

## Dual Sensor Crank Set

The Electronic Crank is fitted with a Load Cell measuring the torque applied to the pedal as well as the crank rotary speed. The controller computes those two values, and with our algorithm, provides a perfectly smooth pedal stroke based on the pressure you apply.

**A Real Bionic Sensation!**



## Intelligent Regenerative Brake System

We created an electronic braking system, fitted into the brake levers, that sends a data signal to the controller that provokes a reverse effect in the motor. This converts torque into resistance using the wheel inertia to generate electricity and recharge the batteries.

In simple words, the regenerative braking acts like an ultra powerful dynamo when the levers are pulled.

Use bike inertia to **recharge** your battery



The intelligent iRBS is linked to EIVA's built-in gyroscope allowing the bike to detect the cycling environment. It then provides the necessary amount of regenerative brake according to the angle of the hill.

iRBS paired with the cloud-based ITS allows you to remotely lock your rear wheel.

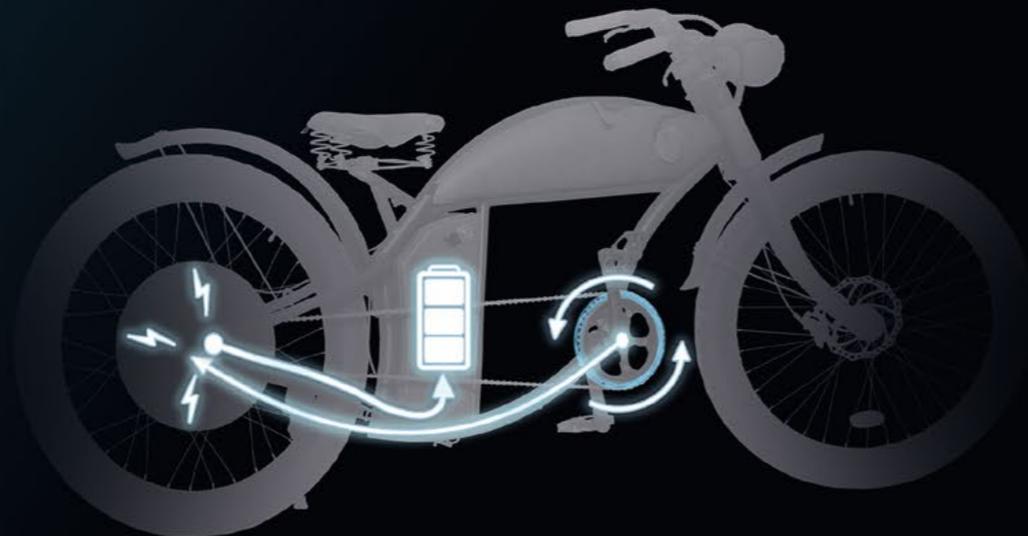
# SMART FEATURES



## Regenerative Back-Pedaling Brakes

While rotating the pedals backwards, a pedal sensor sends a data signal to the controller, which provokes a reverse effect in the motor.

Similar to a classic coaster brake with the extra benefits of battery recharge and a custom adjustable brake curve based on the back-pedaling speed.



The faster you back-pedal



The more you brake



The more you recharge



## REGENFIT

Recharge your batteries and train indoor

RegenFit™ is a smart feature and App for convert any Rayvolt bike into an indoor smart trainer. And, by using the electromagnetic field of the motor, its hall sensors, plus the cadence and torque sensors, we can also recharge the battery.

Through the sensors, you can monitorize all your training on the App, or connect them to cycling simulators.



REGENFIT ios android

Available inside EIVA App

# Today's Solution

THROTTLE

EIVA

LEATHER TANK

BATTERY COVER

LIGHT KIT

With a simple touch on the EIVA<sup>®</sup> App  
**you can customize**  
your riding experience

**PEDAL**

25 km/h Pedal  
Assisted Bike

**MOPED\***

\*Coming soon. This option may not be available depending on the laws of your country and the model of your Rayvolt bike.

# RENAISSANCE 2.0

*Accessories and Lifestyle*



*Extra Saddle*

Are you riding with someone else?



*Surfboard Carrier*

Do you surf?





# Portable Battery



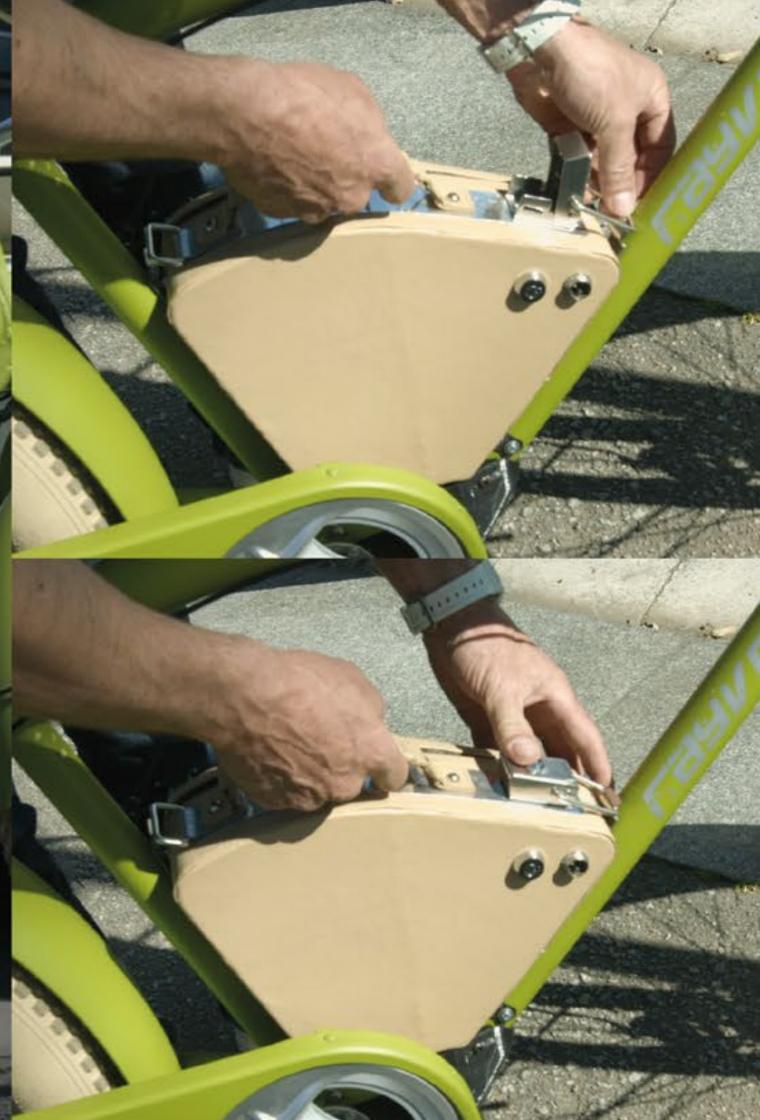
## The Trixie

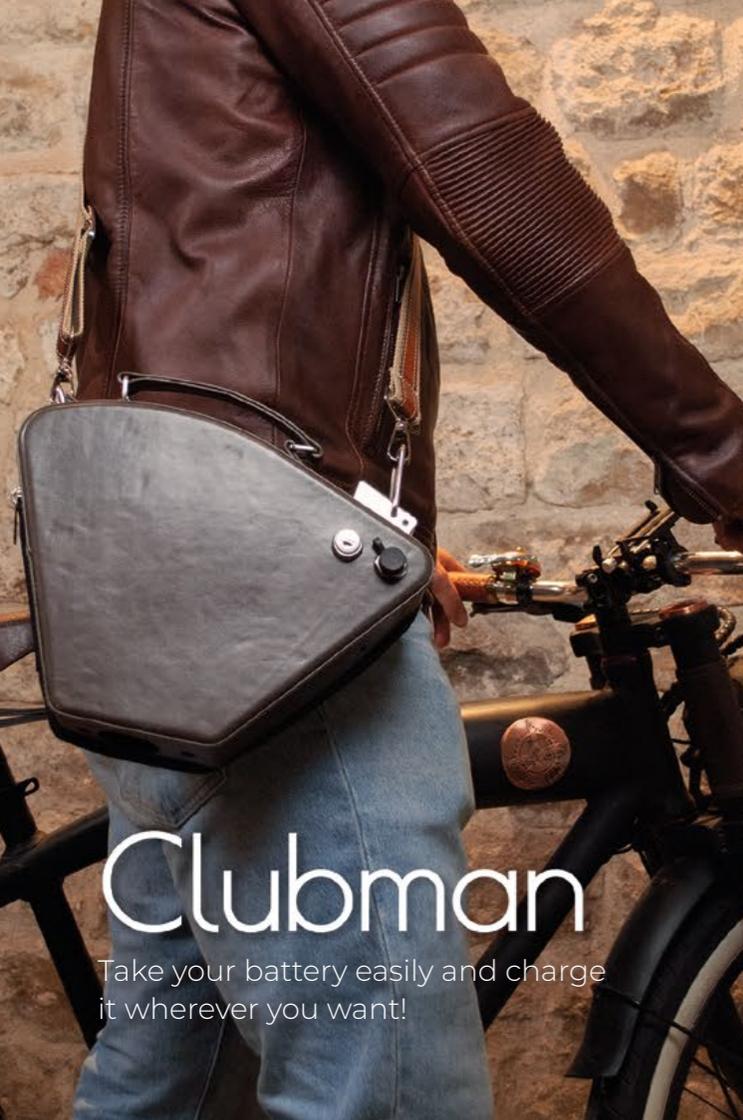
Use your battery cover as a regular bag.  
Wear it! Handle and comfortable for everyone.



## Beachin'

The battery cover includes a security system  
to prevent theft.





# Clubman

Take your battery easily and charge it wherever you want!



# Ambassador

A beautiful design to the last detail that transmits perfectly the brand identity.



## RANGE EPAC

25km/h  
Standard 60km  
Dual 120km

## RANGE MOPED

45km/h  
Standard 40km  
Dual 80km

# Range and Charge



## SOLAR ENERGY

As protecting the environment is our primary goal, we offer **Solar Charging Bike Covers** at factory cost in order to encourage customers to go carbon neutral. Commuting with a Rayvolt electric bicycle is 100% environmentally friendly as it produces zero emissions. Our state of the art technology powers the bikes with maximum efficiency.

### Epac

Pedal assistance mode. there are 6 levels of assistance ranging from "no aid" to "maximum assistance" each can be activated from EIVA.

## ELECTRICITY

Even if EV are a lot cleaner than their combustion counterpart, keep in mind that grid electricity is never 100% clean. We encourage you to switch to a company that offers renewable sources of power (solar, hydro, wind). If your electricity is generated by coil, please consider our solar options.

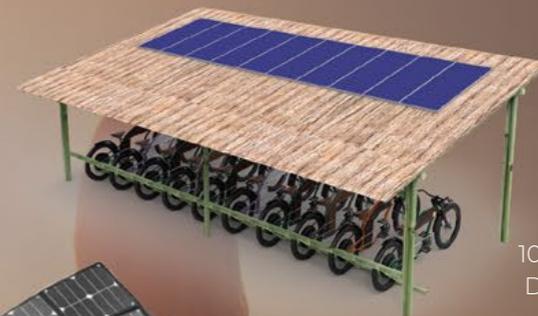
### Moped hybrid

The Rayvolt Bike is 100% compliant with the EU regulation for E-bikes: EN15194

\*This option may not be available depending on the laws of your country and the model of your Rayvolt bike.



Solar Dock



**Solar Docking station**  
10 Bikes Bamboo Solar Park  
Custom design  
100% ECO Solar charging parking  
Designed and built for Starboard

### Foldable Solar Charger

std Battery : 15% Charge in 1 hour\*  
dual Battery : 7% Charge in 1 hour\*

\*Depends on solar condition



**Rayvolt  
Li-ion Fast Charger  
Output 54.6V 8A**

Std Battery: 1 hour charge  
Dual Battery: 2 hour charge



**Rayvolt  
Li-ion Charger Standard  
Output 54.6V 4A**

Std Battery: 3 hours charge  
Dual Battery: 6 hours charge

For indoor use only. Do not open High Voltage inside machine.

### Charge Post

Charge up to 4 bikes  
with Std battery in 1 hour



	Motor	Battery	Weight	Tires	Frame	Display	Brakes	Speed control
<i>Cruzer</i>	Smart Hub 50 Nm - 250 W Power Hub 100 Nm - 250 W	Std Battery 48 V - 10,5 Ah Dual Battery 48 V - 21 Ah	L size 33 kg M size 29 kg	L size 26" x 3.0 M size 24" x 3.0	Rayvolt Aluminum 6061	EIVA Drive 2.0 or MicroEIVA (optional)	Rayvolt Oil Disk Brakes with E-Regenerative 10A-50A	PAS (Pedal Assist System) Torque Sensor (optional) Thumb Throttle*
<b>TORINO</b>	Smart Hub 50 Nm - 250 W Power Hub 100 Nm - 250 W	Std Battery 48 V - 10,5 Ah Dual Battery 48 V - 21 Ah	30 kg	26" x 3.0	Rayvolt Aluminum 6061	EIVA Drive 2.0 or MicroEIVA (optional)	Rayvolt Oil Disk Brakes with E-Regenerative 10A-50A	PAS (Pedal Assist System) Torque Sensor (optional) Thumb Throttle*
<i>Ambassador</i>	Smart Hub 50 Nm - 250 W	Std Battery 48 V - 10,5 Ah	22 kg	28" x 5/8	CrMo	EIVA Drive 2.0 or MicroEIVA (optional)	Rayvolt Oil Disk Brakes with E-Regenerative 10A-50A	PAS (Pedal Assist System) Torque Sensor (optional) Thumb Throttle*
<b>Beachin'</b>	Bafang Motor 40 Nm - 250 W	Std Battery 10,5 Ah Extra Battery 16 Ah	31 kg	26" x 4.0	Rayvolt Aluminum 6061	Bafang Display	Tektro Mechanical Disk Brakes 180 mm or Hydraulic Brakes	PAS (Pedal Assist System) 7-speed Shimano Tourney TZ Thumb Throttle* (optional)
<b>Clubman</b>	Bafang Motor 40 Nm - 250 W	Std Battery 10,5 Ah Extra Battery 16 Ah	27 kg	26" x 3.0	Rayvolt Aluminum 6061	Bafang Display	Tektro Mechanical Disk Brakes 180 mm or Hydraulic Brakes	PAS (Pedal Assist System) 7-speed Shimano Tourney TZ Thumb Throttle* (optional)
 <b>The Trixie</b>	Smart Hub 50 Nm - 250 W Power Hub 100 Nm - 250 W	Std Battery 48 V - 10,5 Ah Dual Battery 48 V - 21 Ah	72 kg	24" and 20" x 3.0	Steel + Rayvolt Aluminum 6061	EIVA Drive 2.0 or MicroEIVA (optional)	Rayvolt Oil Disk Brakes with E-Regenerative 10A-50A	PAS (Pedal Assist System) Torque Sensor (optional) Thumb Throttle*
<b>Ringo</b>	Smart Hub 50 Nm - 250 W	Smart Battery 36 V - 10,5 Ah 36 V - 13 Ah 36 V - 16,5 Ah	29 kg	20" x 41/4"	Rayvolt Aluminum 6061	EIVA Drive 2.0 or MicroEIVA (optional)	Rayvolt Oil Disk Brakes with E-Regenerative 10A-50A or Mechanical Disk Brakes	PAS (Pedal Assist System) Shimano 7 speed Torque Sensor (optional) Thumb Throttle*

\*Depending on your country legislation

JOIN  
THE  
RAY  
VOLUTI  
ON  
!