

# CHAINLESS DRIVE SYSTEM

## 1. WHAT IS CHAINLESS DRIVE

A chainless drive system is a drivetrain that transfers power from your pedals to the wheels without using any tangible parts which include chain,belt,shaft etc. it will use a generator with sensor for pedaling, then the drive motor will run according to your pedaling torque and speed .the rider can easily control the speed and brake via pedaling.meanwhile,the generator will generate power and charge battery.

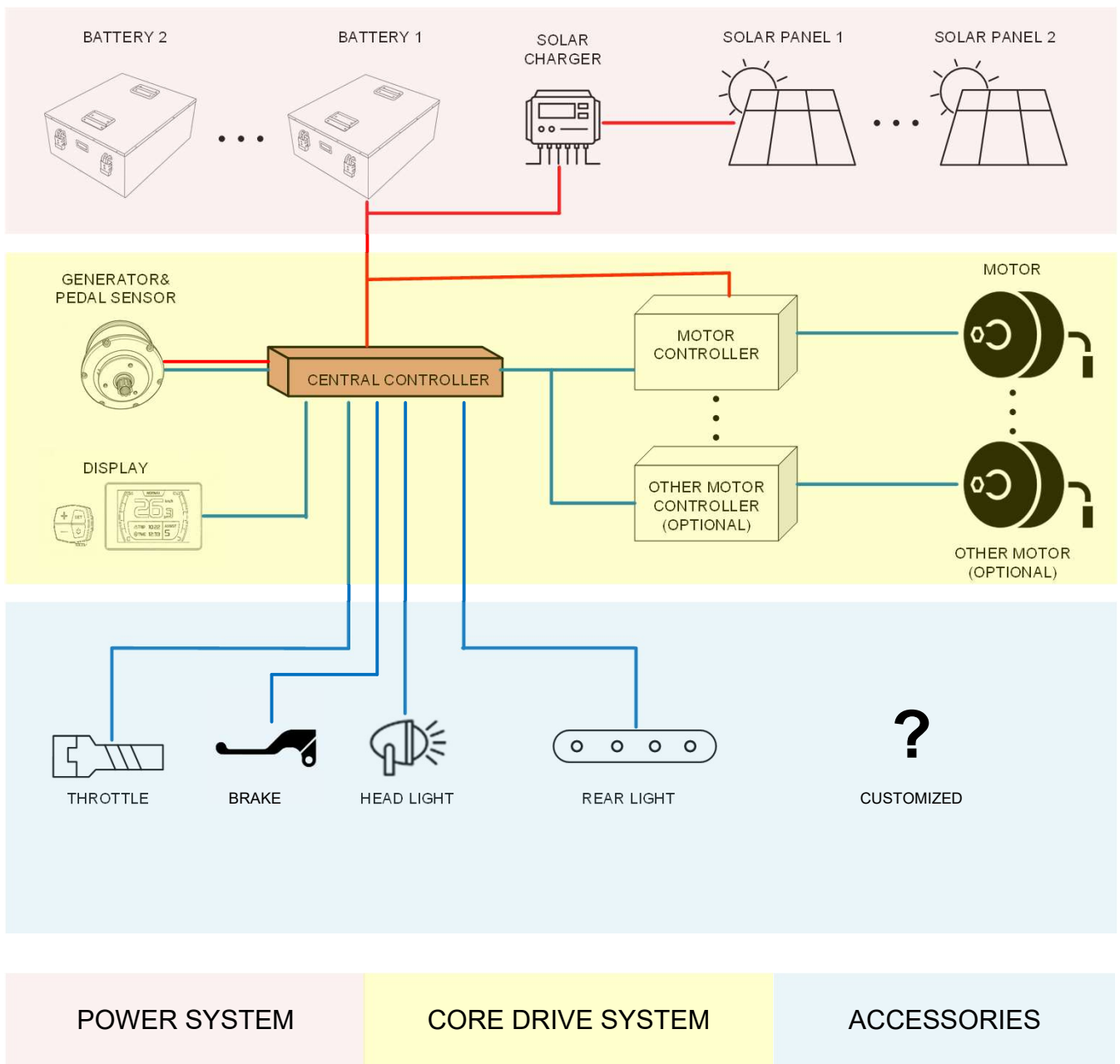
## 2. WHY WE CHOOSE CHAINLESS DRIVE

Moving away from the traditional drivetrain isn't just a design flex—it's a response to some of headaches in micromobility. here are some reasons we change it .

Feature	Traditional drivetrain	Chainless drive system
Maintenance	High	Free
Noise	CLatter Or low noise	Zero
Durability	Depends on material	Unlimtied(depends on motor)

In addition, chainless drive system has a big advantage for those vehicle which need "Loooong" chain as drivetrain . Like cargos ,recumbents. It's a big problem when we design and maintain the chains. We need keep enough space for the chain and usually it will affect the whole frame designing.

### 3. DRIVE SYSTEM MAPPING



NOTE: SINCE THE CORE DRIVE SYSTEM WORK TIGHTLY, SO USUALLY WE WILL SUPPORT THIS PART TOGETHER. FOR POWER SYSTEM AND ACCESSORIES, YOU CAN CHOOSE THEM YOURSELF . OR JUST SIMPLY TELL US YOUR REQUIREMENTS , WE WILL GIVE YOU THE WHOLE BUNDLES .

## 4. KEY FEATURES FOR THE SYSTEM

- **Different power level for your ride.**

The mechanical energy you produce is transformed into electricity and transferred directly to the motor. You can then multiply it by using the battery's energy to boost your own power at different levels, More pedaling, more power. More power, more speed.

- **Regenerative braking**

Pedal backward to slow down and recharge the battery , Energy flows back to the system, extending your range while increasing your braking pads lifetime.

- **Reverse mode**

Keep pedaling backward while the vehicle is at standstill, the vehicle will go backward. There is no need an extra reverse switch involved . and the reverse speed will follow your pedaling rhythm,its always in control.

- **Keep going without battery**

for some light weight vehicle, Even when the battery runs out, power flows directly from the generator to the motor. In this case, your legs Will do all the work.

- **Maintenance free**

Since there is no chains, cassettes, and transmission, you don't need to replace greasy parts and constant maintenance. Even your brake pads will last longer.

- **Easy design for the vehicle**

without tagiable drivetrain , you can make perfect frame as you like .



## 5. APPLICATIONS

- Recumbents

Chainless Three-Wheeler solution for recumbents, currently we have two model for this, 48V750W and 48V1500W.



### Specifications




Core parts	specification	Picture reference
Generator	48V 50w–300w	
Central Controller	CAN communication Wheel speed sensor head/brake light function intergrated	
Motor Controller	FOC 48V 750W / 1500W	 750W
Motor	48V 750W /1500W hub motor	 750W
Display	3.5inch TFT	



- Cargos

Use one motor and differential to drive the vehicle.

### Specifications




Core parts	specification	Picture reference
Generator	48V 50w–300w	
Central Controller	CAN communication Wheel speed sensor head/brake light function intergrated	
Motor Controller	FOC 48V 2000W	
Motor	48V 2000W (with differential)	
Display	customized	



- E bicycles

No chains, no maintenance, Great for shared bicycle.

### Specifications

Core parts	specification	Picture reference
Generator	48V 50w–300w	
Central Controller	CAN communication Wheel speed sensor head/brake light function intergrated	
Motor Controller	FOC 48V 250W	
Motor	48V 250W	
Display	customized	