



**SWINCAR**

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# HISTORY

## INVENTOR

### Pascal RAMBAUD

An architect who became a solar architecture specialist in 1980.

Mountaineer and expert in risk management in both the mountains and industry, he has conducted hundreds of studies on safety and energy dissipation at many different sites and filed numerous patents.



A motorsports driver, he patented, manufactured and marketed the DRIV'UP go-karting trolley, which sold over 10,000 units in Europe and USA.

SWINCAR represents his continuing inventive adventures: the pleasure that comes from research, innovation and new discoveries.

Starting from a blank sheet this original concept involved considerable theoretical and practical work to create a working vehicle, which combines the principles of pendulum balance and kinetics.

Prototypes



## CONCEPT

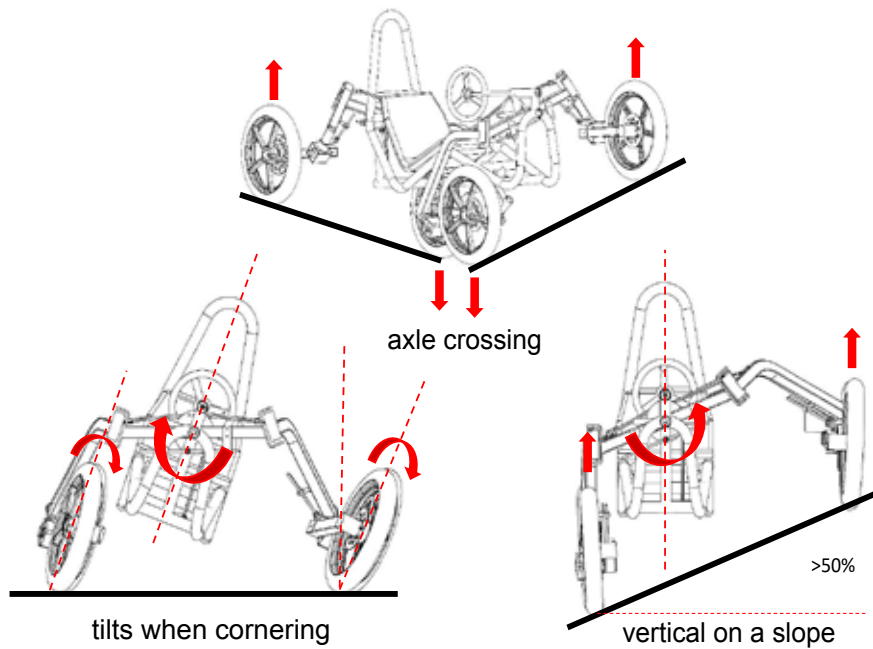
The driver's compartment or nacelle and the wheels are articulated on longitudinal axes, which allows the nacelle to tilt when cornering or on a slope.

This pendulum movement is possible because:

- the center of gravity of the nacelle is situated below its pivot axis,
- the pivot axis of the wheels is below their contact point with the ground.

The nacelle and the wheels each have an independent pendular effect but are linked in their pivoting.

All 4 wheels steer, which means the driver always has a positive and direct feedback from the steering wheel.



The pendulum balance concept is protected by international patents.



## MADE IN FRANCE

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The SWINCAR e-Spider is designed and manufactured in departement of Drôme, located in the Auvergne-Rhône-Alpes region of the South of France.

The assembly is carried out by a specialist, ISO 9001 certified, manufacturer.





# EXPERIENCE

## OVERCOMING OBSTACLES

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ENJOYMENT TOGETHER





ACCESSIBLE TO ALL





RESPECTFUL IN USE





THE SILENCE OF NATURE





# PRODUCT RANGE

## SWINCAR E-SPIDER MODEL



Light electrical quadricycle one-seater  
Four wheel steering on independent suspensions  
Reverse gear  
Foldable rear rack for bags, equipment etc (optional extra)  
Natural tilting when cornering  
Vertical correction on a slope  
Four wheel drive- Engine brake  
2 Front Hydraulic Disc brakes 220mm (8.7in)  
2 Back Hydraulic Disc brakes 220mm (8.7in) (optional extras)  
All the controls are grouped around the steering wheel  
F1 type steering wheel, steering column with lock (optional extras)  
Accessible to all  
Designed and manufactured in France

 30 km/h

 4 hours

 4 kW

## DIMENSIONS

Length:	6.6ft/2.00m
Width:	4.5 ft/1.36m
Height:	4.4 ft/1.35m
Wheelbase:	4.9 ft/1.50m
Ground clearance:	.85 ft/0.26m
Weight with battery 4kWh:	463 lbs/210kg



- Total rated power: 4 kWh, total peak power: 12 kWh
- Total Max torque: 340Nm
- LiFePO4 4kWh batteries integrated into the nacelle/body pod
- 4 hours range with up to 1000m (3,280 ft) ascent
- Battery charging time 2 to 3 hours
- Battery recharging during downhill driving



# SWINCAR E-SPIDER TANDEM MODEL



Light electrical quadricycle two-seater  
Four wheel steering on independent suspensions  
Reverse gear  
Foldable rear rack for bags, equipment etc (optional extra)  
Natural tilting when cornering  
Vertical correction on a slope  
Engine brake on 4 wheels  
4 Hydraulic Disc brakes 220mm (8.7in)  
All the controls are grouped around the steering wheel  
F1 type steering wheel, steering column with lock (optional extra)  
Accessible to all  
Designed and manufactured in France

 30 Km/h

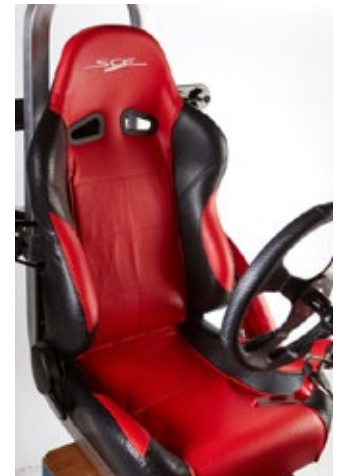
 3 hours

 >4kW

## DIMENSIONS



Length:	8.2 ft/2.50m
Width:	4.5 ft/1.36m
Height:	4.4 ft/1.35m
Wheelbase:	6.4 ft/1.95m
Ground clearance:	.85 ft/0.26m
Weight with battery 4kWh:	551 lbs/250kg



- Total rated power:>4 kw, total peak power:>12 kW
- Total Max torque:>340Nm
- LiFePO4 4kWh batteries integrated into the nacelle/body pod
- 3 hours range with up to 1000m (3,280 ft) ascent
- Battery charging time 2 to 3 hours
- Battery recharging during downhill driving

## DRIVING AND MAINTENANCE

Driving is easy and accessible to all but with its powerful performance the vehicle should be driven in a gentle and controlled driving style maintaining respect for other people and the environment.

The absence of transmission and lubrication means minimal maintenance requirements. Maintenance and technical settings are described in the owner's manual.

The battery can be charged on a standard socket 120V/20A at a temperature above freezing (32F).

Warranty covers manufacturing defects for 1 year, and battery for 2 years or 250 hours of drive time.

## RANGE AND ROAD APPROVAL

When properly equipped, the SWINCAR e-Spider can be registered as a Low Speed Electric vehicle in the U.S.A., as it complies with Federal Motor Vehicle Safety Standard #500, published 2006 by the US National Highway Traffic Safety Administration (NHTSA) and the U.S. Department of Transportation (DOT). Specific requirements vary by state.









**Come test drive your Swincar with us!**

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**SWINCAR**

The photos in this guide are not contractual and the manufacturer reserves the right to carry out modifications to the components and manufacture of the vehicle without brochure.