

Electric Scooters: Tech Behind the Trend



The history of transportation is filled with innovative breakthroughs that brought comfort, speed, and easy of travel for humankind. Diverse modes of transportation have been changing our active lifestyles over the years. Electric vehicles, conceived about a few decades back, are now largely available commercially to revolutionize the way we travel and commute. Today, they are a very popular and growing means of transport across large sections of society, offering a reliable, sustainable, and cost-effective way of transportation. This article explains the technology that drives the common (EV) electric two-wheeler like [YoBykes](#) on the road, the features inside, and the benefits of using an EV.

Electric vehicles run on electric motor and batteries that can be recharged. Conceived before the common gas-run automobiles, the pioneering concept was mastered between 1830-1870 s, and the first patent for an electric scooter was applied for in the 1890s. The technology was perfected and mastered over the next 100 years, and the first commercially available electric scooter was launched in 1996. Battery technology continued to be perfected down the years, and today, there are broadly three types of batteries used by the available

[electric vehicles](#). Electric vehicles are convenient and easy to use, offering sustainable benefits to the environment in terms of reducing pollution and greenhouse gas emissions. They have low maintenance costs and perform better than other gas-based two-wheelers.

The core components of an electric two-wheeler are the battery pack, electric motor, power inverter, charging port, frame, and the on-board charger. The range of an electric scooter depends on the battery type. The cheapest batteries are lead-acid batteries, while the most expensive ones use lithium batteries. Most recent electric scooters like YoBykes use the latter, which are lighter, lasts longer, and charge faster. Please read the user manual to know what kind of battery pack is used in your electric two-wheeler.

The electric vehicle transmission consists of a motor, inverter, and battery. The electric traction motor, the main component of an electric vehicle, converts the electrical energy into kinetic energy. An important feature of an electric motor is the [regenerative braking mechanism](#). This mechanism slows down the vehicle by converting kinetic energy into another form and storing it for future use. The power inverter converts DC power from the batteries to AC power. It also converts the AC current generated during braking into a DC current. The gearbox transfers the mechanical power from the electric motor to the wheels. The advantage of electric cars is that they do not require multi-speed transmissions. The throttle is the rider's control, adjusting the current supplied to the motor, thus determining the scooter's speed.

The scooter's frame material impacts its weight, stability, and durability. Industrial-grade aluminium alloy frames are common due to their lightweight yet sturdy nature. Electric scooters have either spring or hydraulic suspension systems. The type of frame of your electric vehicle is responsible for a smoother ride and increasing riding comfort. Some electric scooters are designed with a foldable frame. The frame is equipped with onboard controls and handlebars. A charging port connects the electric vehicle to an external supply. It charges the battery pack. The charge port is either located in the front or rear part of the vehicle.

The throttle sends electric signals through cable wires to the controller. The controller releases power from the battery to the motor. The motor converts the electrical energy into mechanical energy, moving the wheels. The movement of the wheels propel the scooter forward. Brakes determine the safety of any vehicle. The brakes can be of two types; mechanical or electronic, with regenerative braking option to increase battery efficiency. Yo Bykes has a reliable brake system that stops the vehicle in the stipulated time.

The battery size of an electric scooter is a critical component of an electric vehicle. Its battery size is an essential aspect of the overall performance of the device. It determines the speed, range, and capacity of an electric scooter.

YoBykes use high quality lithium ion batteries that can fully charge that need to be looked and cared for optimum performance

Some common battery safety tips

- Recharge your battery after every use if possible. It extends your battery life
- Never leave a battery connected to the charger or mains power overnight.
- Never leave your battery completely discharged for more than 24 hours
- Do not recharge in damp conditions or in temperatures less than 0°C
- Recharge your battery every month, even if you are not using the bike.
- During hot weather, always leave your YO Byke in a shaded well ventilated area.
- Never expose the battery pack to fire, heat sources, acid or alkaline substances.
- Never open a battery case or try and fix the battery.
- If a battery is, or appears to be damaged or overheating for any reason, do not use the battery any more.

Just like any other kind of vehicle, electric scooters, and bikes also need to be used safely. Its important to take care of certain things before riding your electric two wheeler.



Know your Electric Two-Wheeler

Understand the controls and features of your electric bike/ scooter before you set off on your ride to an electric bike/scooter

Obey the Traffic Rules

E-scooters/bikes may be smaller than cars, but one must adhere to traffic rules and regulations. Obey traffic signals, follow speed limits, and always stay in your lane.

Be Mindful of Pedestrians

Be respectful of pedestrians sharing the road while riding your YoByke Slow down near pedestrian crossings, zebra crossings, and crowded areas.

Stay Visible and Use Lights

During low-light conditions. Make yourself as visible as possible to other motorists by using lights.

Regular Maintenance and Checks

E-scooters/bikes are safer when they're always in good condition. Check tyre pressure, brake pressure, lights, battery health, etc.

Sustainable Urban Mobility

Electric scooters like Yo bykes are the future requirement to augment contemporary transportation infrastructure. Bharat now poised to be one of the largest economies of the world has hundreds of cities; where people are switching to electric modes of transportation. Young individuals across the world are switching to this unmatched driving experience. Urban areas

The driving experience in [electric vehicles](#) is unmatched, thanks to their instant torque and advanced technology. Unlike petrol vehicles, which take some time to accelerate, electric vehicles can achieve high speeds within seconds. This makes the driving experience much smoother and enjoyable, especially in urban areas where stop-and-go traffic is common.

One of the most significant benefits of electric vehicles is that they are environment-friendly. As the world continues to focus on reducing greenhouse gas emissions and battling climate change, electric vehicles provide a solution to reduce our carbon footprint.