

# Design & Development of Solar Electric Bicycle

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**Abstract:** *The rider of an E-bike can choose to rely on the motor completely, pedal and use the motor at the same time or pedal only (use as a conventional bicycle) The P.V. panels must be mounted and installed at the electric bicycle without compromising riding comfort ability. The concept of the solar energy is that a high torque motor will be put on the bicycle which will be generated by the solar energy. The solar energy will be absorbed by the portable solar panel to generate the power. The power that had been absorbed by the panel can be used directly by the motor if the power matches the power requirement. If not, the motor will use the power from a battery. When the bicycle was not in use during the day, the solar panel will charge the battery. The system will make bicycle operate more efficiently. So, this is where electric bicycle mainly came into picture. People need a green, health preserving, fast mode of transportation and E-bicycle gave it all. More than just being these things electric bicycles is also able to generate back electric power by the use of pedal power through regenerative mode of the motor used. There are many uses of an Electric Bicycle. Our Aim is to making a Cheapest Rate Electric Bicycle from Market Price.*

**Keywords:** E-mobility, Solar E-bicycle, lithium-ion Battery, Battery Pack, etc.

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