

# Low Cost Multipurpose Electrical Vehicle

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**Abstract:** *The design of an electric powered tricycle for use as a commercial means of transportation. The tricycle uses an electric brushless direct current motor connected to the rear wheels of the tricycle using the chain and sprocket mechanism. This motor is powered by direct current from the battery bank. Lightweight motorized tricycles have been a hit with senior population who love the fact that the bike has large baskets in the front and rear which allow them to perform nearby errands. Now that we have explained the function and capabilities of motorized electric tricycles, we wanted to provide a brief introduction of our own lineup of electric tricycle. The design of the three-wheeled battery electric vehicle must have many favorable characteristics such as low mass and good aerodynamics. The vehicle designed with one seat to be thrust by brushed motor attached on the rear wheel and powered by 48V Lithium-ion battery. The fabricated three-wheel battery electric vehicle total weight is 75kg. It is tested in different tracks, many attempts, with best result ---km/kWh. Vehicle maximum speed is ---km/h and the maximum efficiency is 70% at 40km/h.*

**Keywords:** Prototype, battery electric, three-wheel vehicles, lithium-ion battery, chassis.

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