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FARMER GREEN E CART

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KEYWORDS:

- Multipurpose
- Farmer
- Green
- E-Cart
- Agriculture
- Farming
- Portable
- Efficient
- Renewable energy
- Electric power
- Cargo
- Transportation
- Sustainability

- Innovation

- Technology

- Mobility

INTRODUCTION:

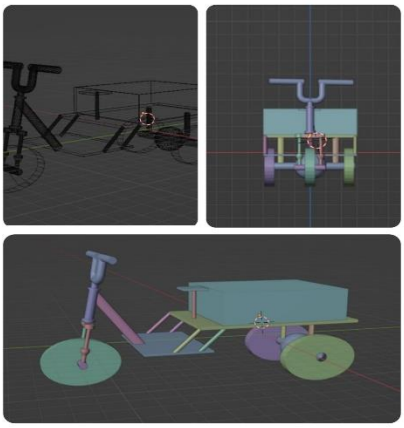
The Farmer Green E Cart is an innovative project that aims to support farmers in their agricultural activities while promoting sustainability and reducing dependence on fossil fuels. It is an electric-powered cart designed to be versatile and adaptable for various farming tasks. The primary objective of the Farmer Green E Cart is to provide a reliable and efficient mode of transportation and assistance for farmers. The cart is equipped with a powerful electric motor that eliminates the need for traditional fuel, reducing both costs and environmental impact. It is powered by rechargeable batteries, which can be charged using renewable energy sources such as solar power, further enhancing its eco-friendly nature. The design of the cart is modular, allowing farmers to customize and configure it based on their specific requirements. It features a spacious cargo area that can accommodate various farming equipment, tools, and harvested produce. The cart can be easily transformed into a transportation vehicle for carrying heavy loads, a mobile workstation for processing crops, or even a platform for spraying pesticides or fertilizers. In addition to its adaptability, the Farmer Green E Cart incorporates smart technology for enhanced functionality. This integration of technology helps improve productivity, reduce resource wastage, and increase overall efficiency in farming operations.

OBJECTIVES:

- Designing of a portable solar grid
- EV battery charging
- Home appliances (Fan, Tv, Lights)
- Useful for farmers in field
- Irrigation
- Solar fencing
- Solar insect trap
- Lighting for sheepyard or goat farming

METHODOLOGY:

COLLECTION OF COMPONENTS



DESIGNING THE VEHICLE

BUILDING OF MECHANICAL BODY

PAINTING THE VEHICLE

ALLIGNMENT OF SOLAR PANELS ON VEHICLE

ELECTRICAL CONNECTION OF VEHICLE AND SOLAR PANEL

IMPLEMENTATION OF APPLICATIONS

TESTING THE VEHICLE

RESULTS AND CONCLUSIONS:

In conclusion, the farmer green e-cart is an innovative solution for modern agriculture. It offers several benefits over traditional gas-powered farm vehicles, including lower operating costs, reduced emissions, and increased efficiency. The e-cart's electric motor is powered by a rechargeable lithium-ion battery, making it eco-friendly and sustainable.

With the growing demand for sustainable agriculture, the farmer green e-cart has become an essential tool for farmers worldwide. It offers practical and sustainable solutions to the challenges facing modern agriculture, helping farmers to reduce their operating costs and environmental impact. The future of agriculture is sustainable, and the farmer green e-cart is helping to lead the way.

Multipurpose farmer green e-carts are designed to be versatile and can be used for a variety of agricultural tasks, including transporting goods and water irrigation purpose. These e-carts are easy to maintain, with fewer moving parts than traditional vehicles, making them less prone to mechanical failures.

SCOPE FOR THE FUTURE WORK:

The vehicle charging time can be reduced by using fast chargers. By using more efficient solar panels power generation can be increased. In good sunny conditions, the full charge endurance of solar electric vehicle can be increased about 35% substantially compared with no PV panels. Wireless charging facility can be installed for more effective charging. The excess amount of solar energy which is available can be used to power home appliances by adding an inverter. The drum brakes can be replaced with the disc brakes with ABS system for more enhanced safety. The motor can be swapped with more powerful one for more power consuming application. Future hybrid technology will offer increases in efficiency for electric motors, batteries and gas- or diesel-powered engines. As per a recent study, electric vehicles (EVs) market is expected to be worth around at least 475 billion by 2025