



IIT MADRAS

Indian Institute of Technology Madras

Technology Transfer Office
TTO - IPM Cell



Industrial Consultancy & Sponsored Research (IC&SR)

DEVICE FOR MANUALLY SWAPPING BATTERY IN FOUR WHEELER ELECTRIC VEHICLES

IITM Technology Available for Licensing

Intellectual Property (Design)

IITM IDF Ref. 2212;
Design No: 349995-001(GRANTED)

Technology/IP Category/ Market

Design: Battery Swapping and Charging in four-wheeler **electric vehicles** with swappable battery systems.

Industry: Assistive Device.

Applications: Automotive

Market: The global electric vehicle market size was valued USD 384.65 billion in 2022. The market is poised to grow from USD 500.48 billion in 2023 to USD 1,579.10 billion by 2030, growing at **CAGR of 17.8%** during 2023 to 2030 period.

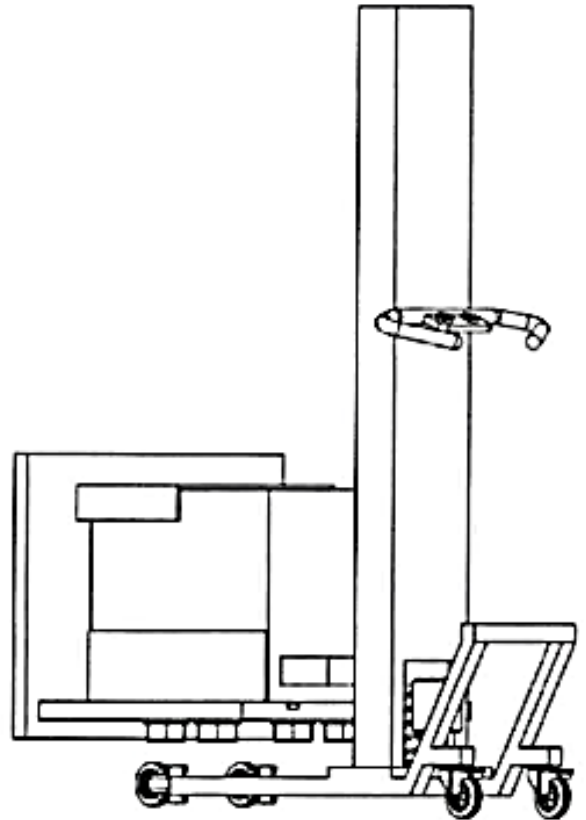
Design

- This innovative design enables **effortless battery swapping in electric vehicles**, promoting **faster EV adoption** without vehicle modifications, making it **user-friendly and cost-effective**, while offering flexibility in battery capacity options for **OEMs and users**.

TRL (Technology Readiness Level)

TRL-3/4, Proof of concept established.

Images



PERSPECTIVE VIEW

Research Lab

Prof. Jayaganthan,
Department of Engineering Design

CONTACT US

Dr. Dara Ajay, Head
Technology Transfer Office,
IPM Cell- IC&SR, IIT Madras

IITM TTO Website:
<https://ipm.icsr.in/ipm/>

Email: smipm-icsr@icsrpis.iitm.ac.in

sm-marketing@imail.iitm.ac.in

Phone: +91-44-2257 9756/ 9719



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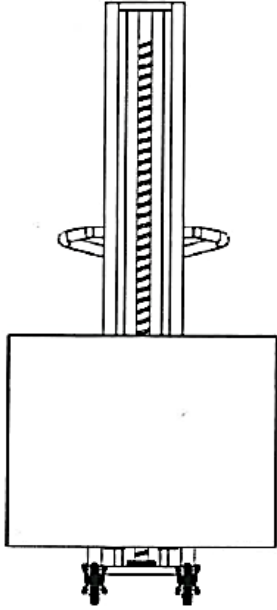


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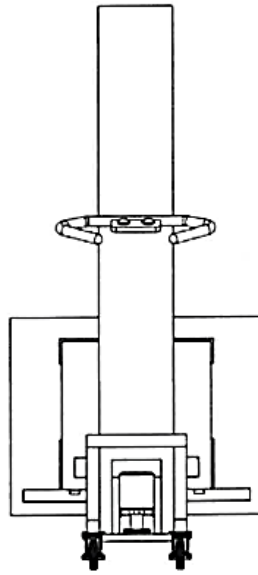
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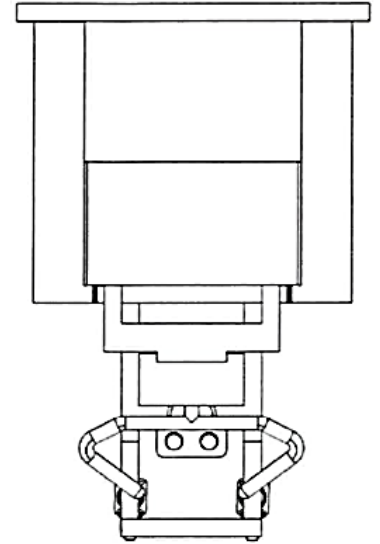
Additional Images



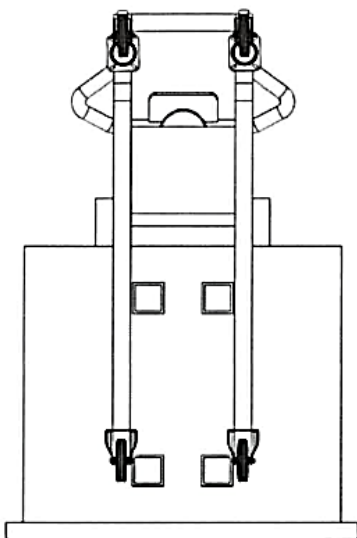
REAR VIEW



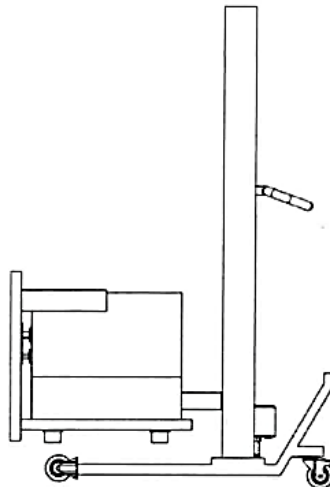
FRONT VIEW



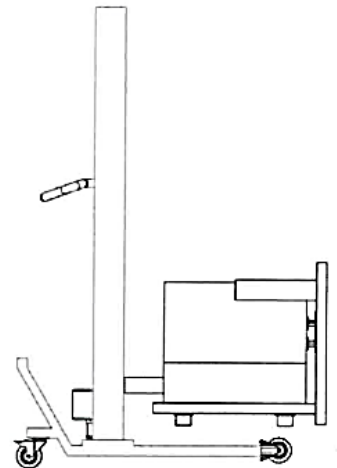
TOP VIEW



BOTTOM VIEW



LEFT SIDE VIEW



RIGHT SIDE VIEW

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Dr. Dara Ajay, Head
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IITM TTO Website:
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Email: smipm-icsr@icsrpis.iitm.ac.in

sm-marketing@imail.iitm.ac.in

Phone: +91-44-2257 9756/ 9719