

# Karnataka Law Society's GOGTE INSTITUTE OF TECHNOLOGY

**Belagavi** 



#### PROJECT EXPO-2023

Department of \_\_MECHANICAL ENGINEERING

## **Project Title :- 360° TURNING ELECTRIC FORKLIFT FOR INDUSTRY WAREHOUSES & DOMESTIC PURPOSE**

#### Motivation and Objectives

Now a days due to heavy work load environment in the mechanical industrial lines workers are been depressed for carrying a heavy load, where the workers are prone to unhealthy conditions (FATIGUE). Due to these factors some load carrying machines were developed in the recent past years.

#### Objective is to

- Design & Develop a 360 turning E-forklift with Enhanced Manueverability.
- > To Create a versatile mechanical Device To Cater both Industries & Domestic Application's.
- Taking safety as prime consideration: This device is safer in all respects.
- Taking Cost as Factor To make Device which is economically suitable for small Scale industries
- > To Enhance productivity By minimizing Operation time & job cycle

#### Methodology

Study of various machine used now a days and survey

Study of different Type of mechanism / material

Designing the equipment with comforts and feasibility

Sketching /drawings approximates measurements

Purchasing the material as per the requirements

Fabrication with standers components and equipment

Testing for all the positive output

Painting and demo of the machine

#### **Results & Discussion**

After successful Design & Development Taking design considerations

We found The best Product which is Feasible in following aspects



- ✓ Can move in less space
- ✓ Easy in operation
- The machine is easily affordable.
- The machine is easily portable
- ✓ Simple construction- is fabricated from locally available materials and common tool; easy to maintain and repair.
- ✓ Adaptable- can is stationary or portable and can be adapted for medium as well as small scale industry, store house
- ✓ Performance- specification is higher than the manually operated.
- Easy setup- it can assemble easily.
- ✓ Light weight- machine is simple in design and light in weight.
- ✓ No skill is required to operate the machine; little demonstration is more than enough.
- ✓ Safety in all respects.



#### Conclusion

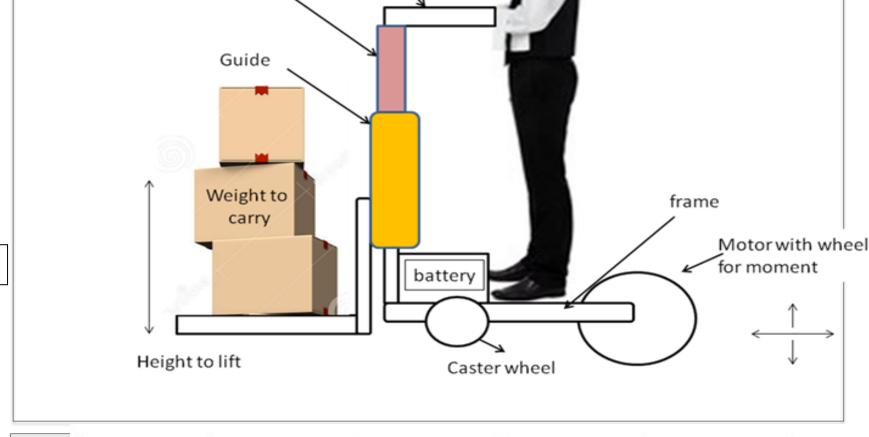
We feel that project that we are doing have good future scope

The device affords plenty of scope for modifications, further improvements & operational efficiency, which should make it commercially available & attractive. If taken up for commercial production and marketed properly.

In conclusion, the E-forklift project stands as a testament to our dedication to sustainable practices, technological advancements, and customer satisfaction. By embracing electric-powered solutions, we have taken a significant step towards a greener, quieter, and more efficient future in material handling operations

#### Outputs |

Cost Expenditure ₹ 8000 {Materials Cost + Processing Cost + Miscellaneous}



Labour productivity growth in India's organized

Handle with

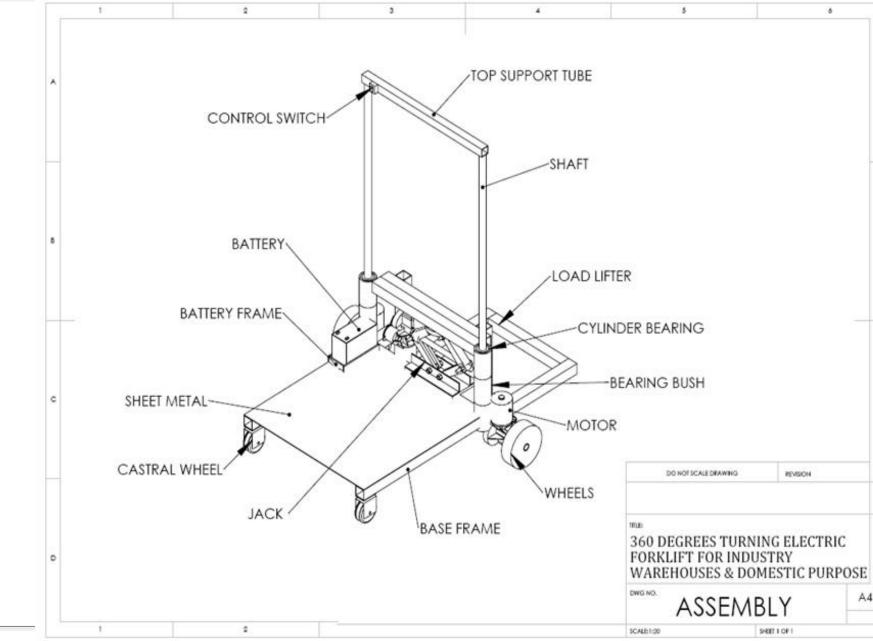
Lifting

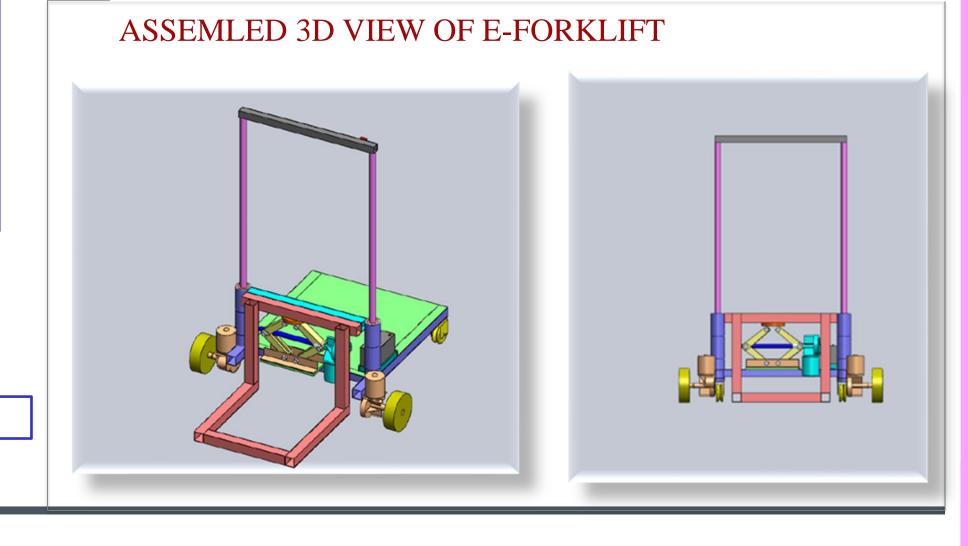
mechanism

operating switch

Labour productivity growth (in %

manufacturing sector has slowed down





### Project Group | B33

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