DEPARTMENT OF MECHANICAL ENGINEERING

21ARE113 Manufacturing Laboratory

Second Semester

B Tech. Automation and Robotics Engineering

DRY MOP CLEANER

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AIM

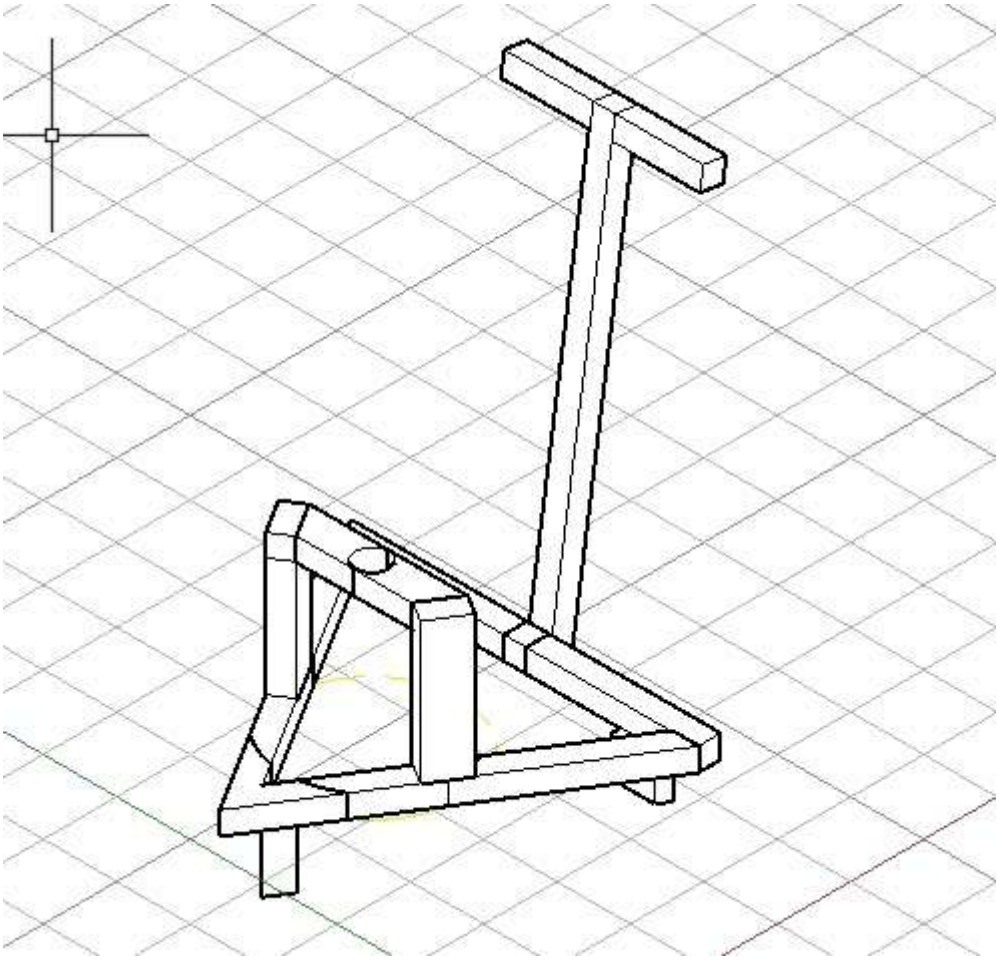
To create a portable dry mob cleaner with a triangular base and a DC motor

MATERIALS USED:

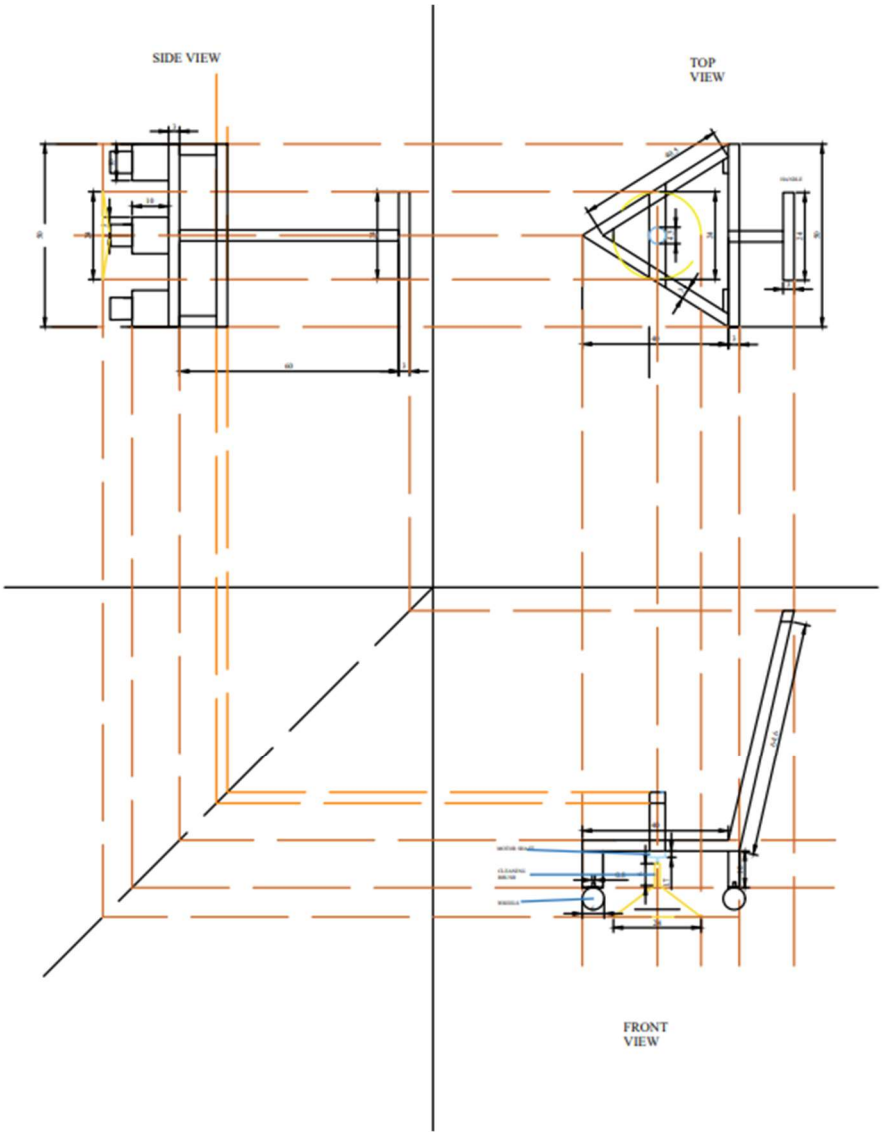
Name	Specifications	Quantity
12V High Torque DC Motor	RPM: 100	1
battery	Voltage: 9v	2
Motor shaft	Lightweight, Small Shaft	1
Connecting wires	Length:1m	1
Metal rods	Diameter:25mm Length :50cm	2
Metal rods	Diameter:25mm Length :50+30+15+15cm	4
Metal rods	Diameter:25mm Length: 70cm	1
Screw and Bolt	Diameter: 8mm Length: 40mm	2
Screw and Bolt	Diameter: 4mm Length: 20mm	1
Trolley wheels	Diameter: 65mm Height:75mm	3
SS welding rods	3mm thick	5

CAD DRAWING

3d representation of the base for dry mop

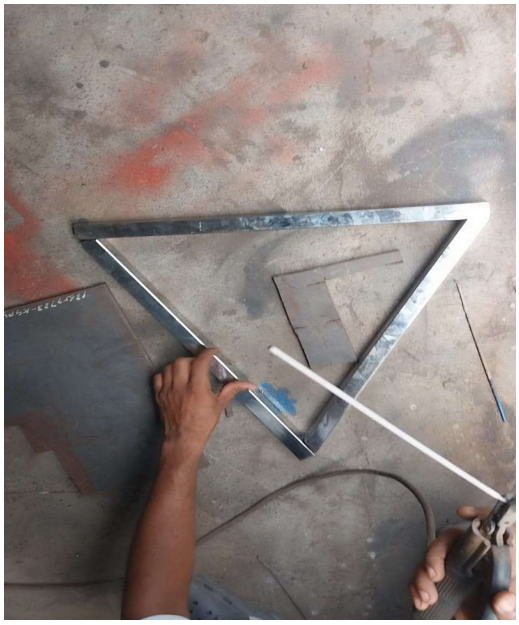


Orthographic representation of dry mop cleaner



Photos of Various stages of the project

Making the triangular base



Attaching the wheels via welding

Attaching the body and the handle

Final product

SUMMARY

The Dry Mop Cleaner Project was aimed to revolutionize the way we clean and maintain our living spaces. In this ambitious venture, our team set out to design and develop an innovative cleaning solution that would not only simplify the cleaning process but also reduce our ecological footprint.

The core concept behind the Dry Mop Cleaner was to create a highly efficient and eco-friendly tool that could effectively clean various surfaces without the need for water or chemical cleaning agents. Our primary objectives included:

1. Efficiency:

   We focused on designing a cleaner that could efficiently clean dust, dirt, and debris from floors, walls, and ceilings. The mop's connected to a motor which is connected to battery then switch, when turned on the mop rotates while moving which cleans the particles, leaving surface spotless.

2. Sustainability:

Sustainability was at the heart of our project. The Dry Mop Cleaner was designed to be reusable, cutting down on waste.

3. User-Friendliness:

   We recognized the importance of making cleaning tasks less cumbersome. Our team developed an ergonomic handle and easy-to-use features to ensure that the Dry Mop Cleaner would be a convenient tool for all users.

4. Longevity:

Durability was a key concern. We rigorously tested the mop's components to ensure a long lifespan, reducing the need for frequent replacements. Also, the mop can be easily replacable when required.

Throughout the project, we engaged in extensive research and testing to refine the Dry Mop Cleaner's design and functionality. We were pleased to find that our product aligned with sustainability goals. The Dry Mop Cleaner Project was a testament to our commitment to innovation, sustainability, and user-centric design. It represented a significant step toward more efficient and environmentally conscious cleaning practices. As we move forward, we are excited about the potential of this product to make a positive impact on households and neighbourhood.

Acknowledgment:

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