



Fabrication project TA201

Rail Engine Model

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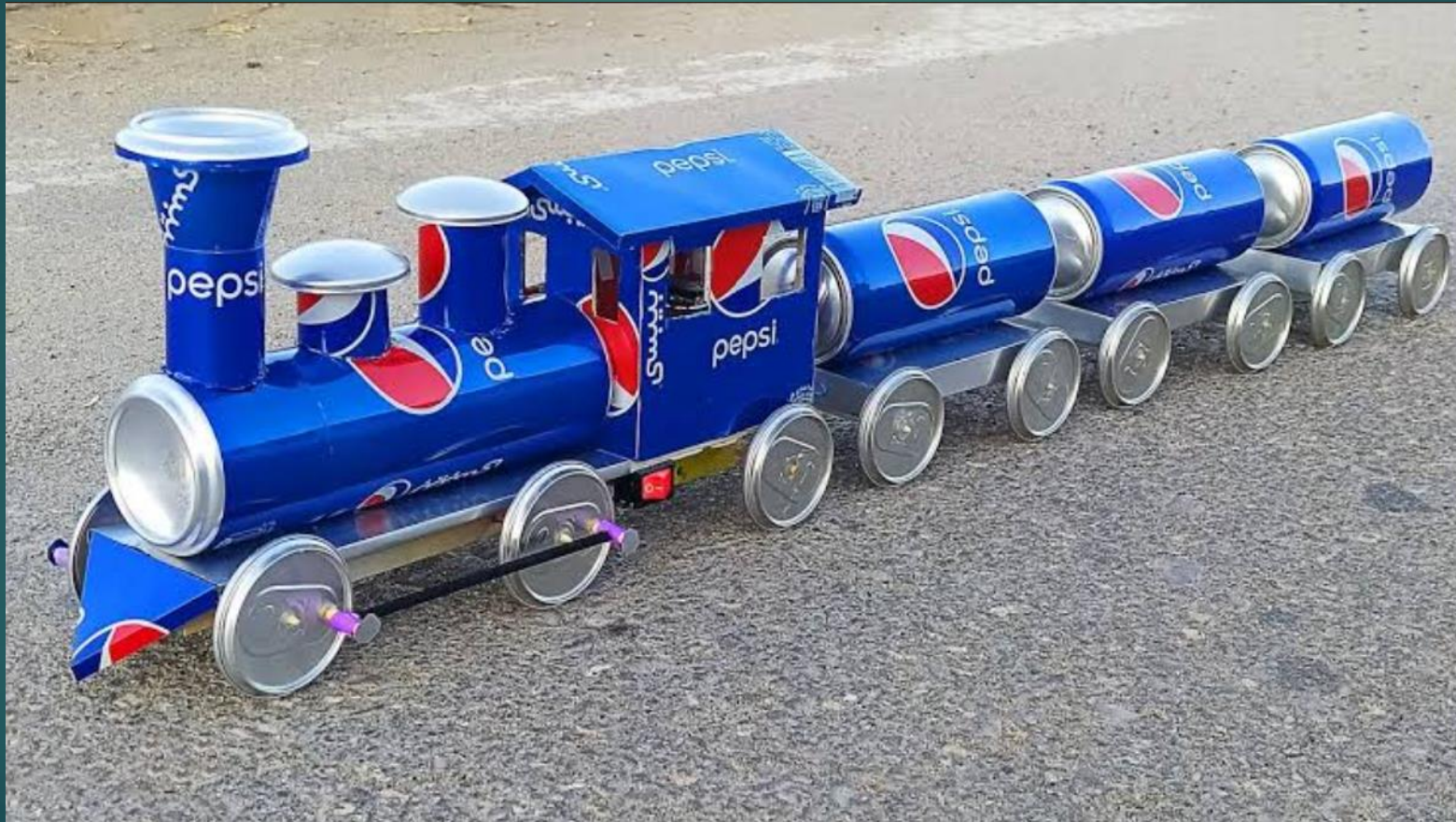
Acknowledgement

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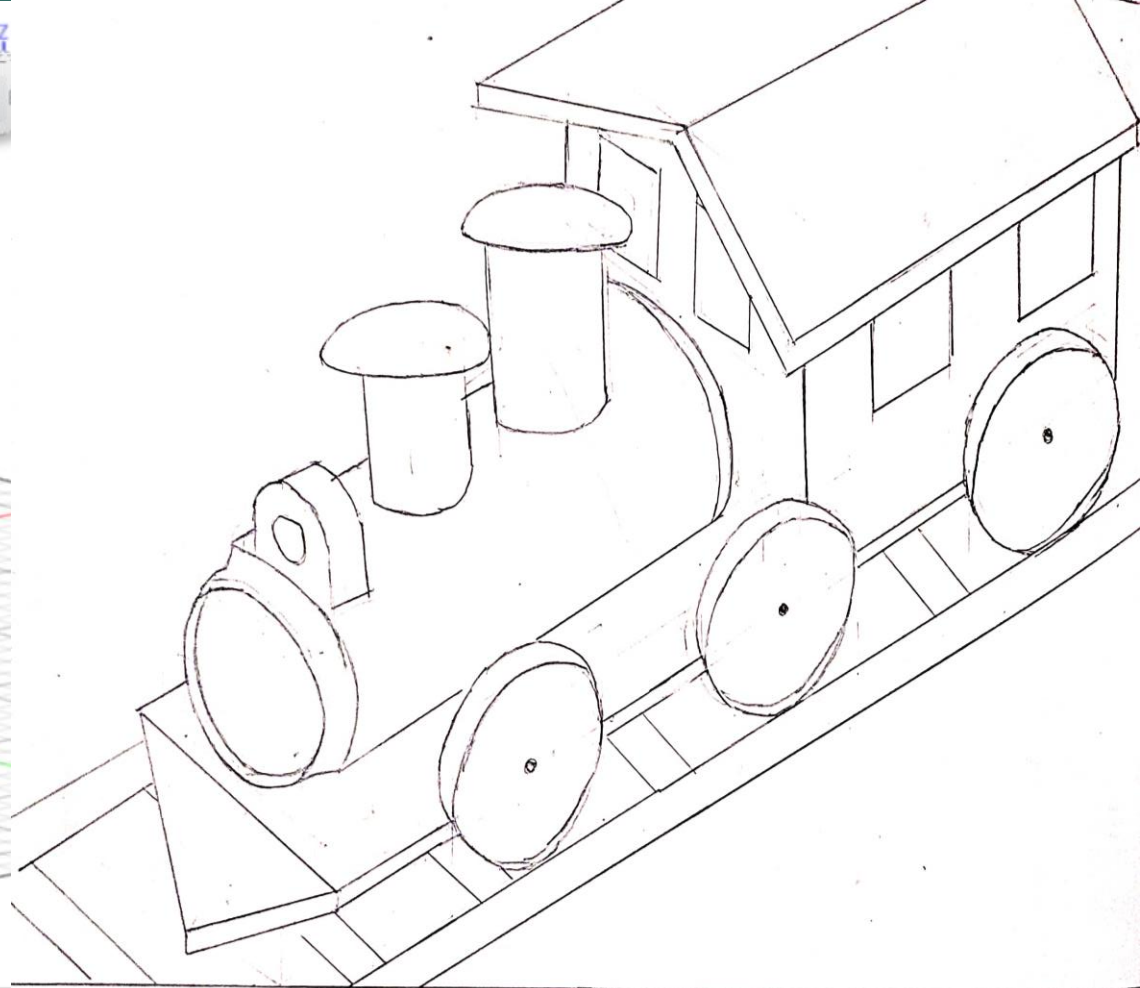
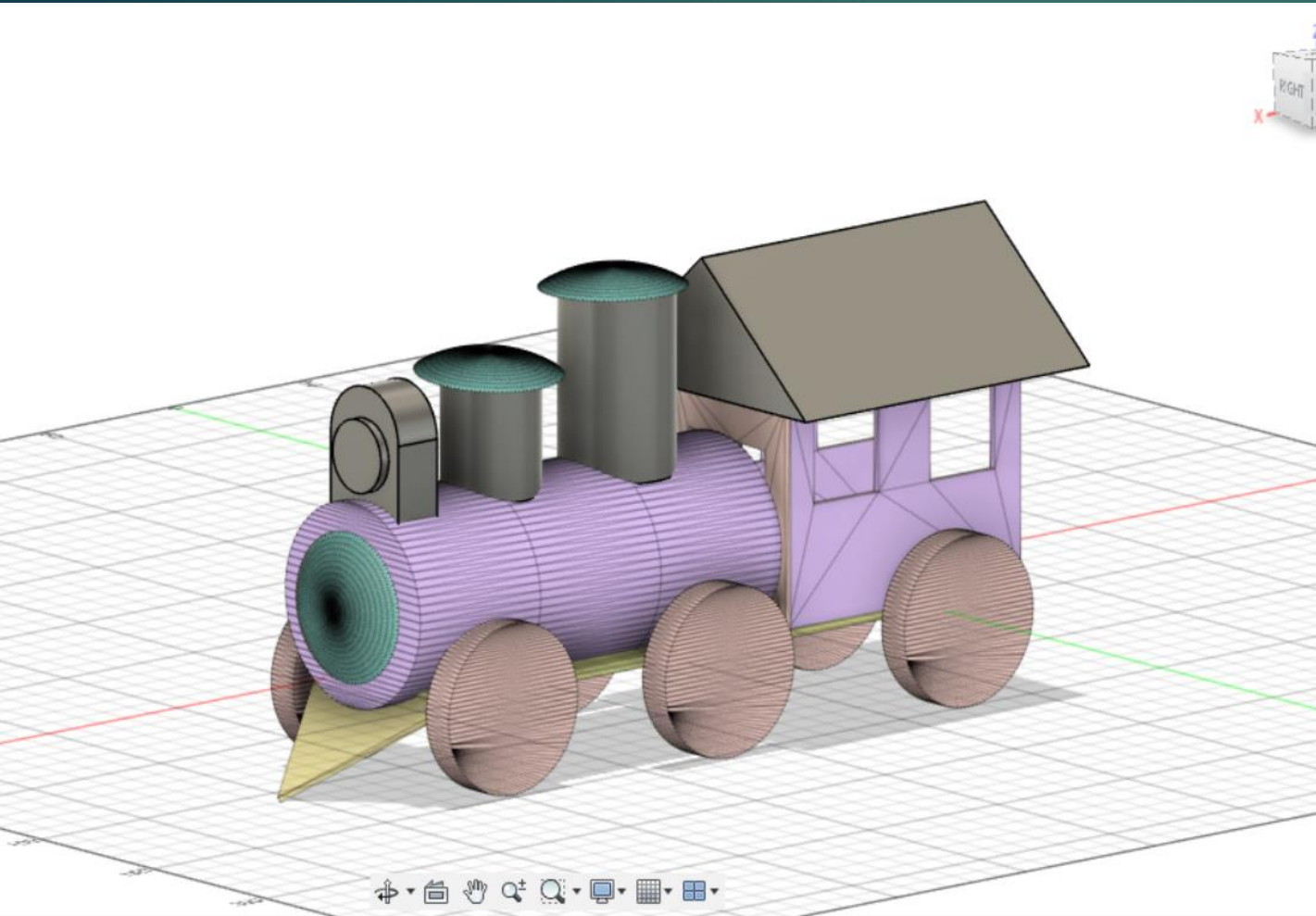
Outline of the project

- ❑ Isometric and Orthographic Drawing
- ❑ Materials required and Processing involved
- ❑ Fabrication of Parts
- ❑ Assembling
- ❑ Final Fabricated product
- ❑ Cost Analysis
- ❑ Safety issues and Problems faced

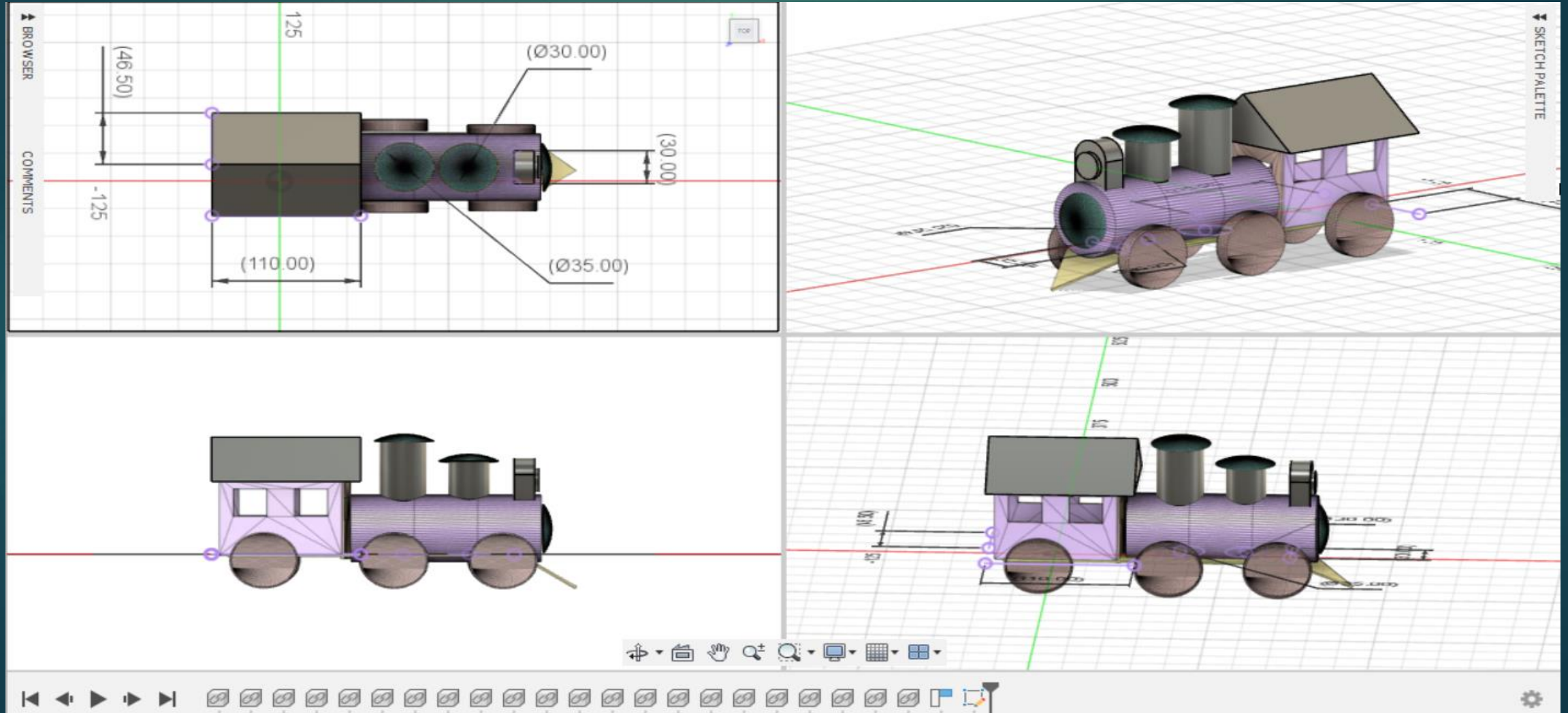
Train with cans



ISOMETRIC DRAWING



ORTHOGRAPHIC VIEWS AND DIMENSIONS



Materials Required

- Pepsi cans
- Glue gun
- Scissors
- Metal sheet
- Cutter
- Sand paper
- Cycle Spokes
- Straws

Manufacturing process

- ❖ Grinding
- ❖ Cutting
- ❖ Bending
- ❖ Shaping
- ❖ Adhesive Joining

Obtaining Materials



**Removing can lids
through Grinding**



Making Wheels- Soda
Can tops are joined with cycle
spokes with glue



Engine Main Cylinder-
Soda Can Bottom hemisphere is cut and
joined to other Soda can



**Cabin parts made
by cutting**



**Steam Vents made
with Soda can
bottom**



Assembling

Fabrication steps

1) All initial Materials



2) Removing Can lids through Grinding



3) Making Wheels

Pepsi Can tops are joined with cycle spokes with glue



4) Engine Main Cylinder

Pepsi Can Bottom hemisphere is cut and joined to other can



5) Cabin parts made by cutting



6) Assembling



Final Fabricated Product



Cost analysis

S.NO	MATERIAL	COST
1	Pepsi Cans	150
2	Glue gun	200
3	Straws	5
4	Cycle Spokes	25
5	Cutter	20
6	Metal Sheet	100
		TOTAL COST = 500

Safety Measures and Problems faced

Safety Measures

- Wear gloves while handling sharp edges of can
- Small metal particles after cutting should be handled care

Problems Faced

- While making wheels cutting makes lids look bad and unable to rotate so grinding gave smooth wheels and made project dynamic (movable)
- Making head light was a bit complicated



Thank You