TA201 PROJECT REPORT
GROUP->MG-16

TOPIC : FERRIS WHEEL

TUTOR:- Dr. Niraj Chawake
LAB-IN-CHARGE:- Mr. Anil Kumar Verma

TA's:-

- **V S S Manoj Kumar Gunnabhaktula**
- **Ajay Singh**

LAB-STAFF:-

- **Nripen Deka**
- **Mr. IP Singh**
- **Mr. AK Verma**
- **Mr. Rakesh Dixit**
- **Mr. Gourav Mishra**
- **Mr. Anurag Prasad**
- **Mr. Bharat Raj Singh,**
- **Mr. Pappu**

GROUP MEMBERS:-

- **YASHVEER YADAV**
- **UMANG SINHA**
- **UJJAWAL DUBEY**
- **VAIBHAV METHI**
- **VISHAL HIMMATSINGKHA**
- **VANSHIKA GUPTA**
- **YERUSU DHARINI REDDY**
- **VIPUL CHANCHL**
- **ANITHINGNAM ARVINCHANDRA**

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INTRODUCTION

A Ferris wheel (Also called a Giant wheel)is an amusement ride consisting of a rotating upright wheel with multiple passenger carrying components(commonly referred to as passenger cars, cabins, tubs ,gondolas,capsules) attached to the rim in such a way that as the wheel turns, they are upright, usually by gravity. Some of the largest modern Ferris wheels have cars mounted on the outside of the rim with electric motors to indepently rotate each car to keep it upright. These cars are often referred to as capsules or pods.

The original Ferris wheel was designed and constructed by Gale Ferris Jr. as a landmark for the 1983 World's Columbian Exposition in Chicago.

MOTIVATION

Our project is the Ferris wheel. It is a familiar sight at children's parks and may even bring back fond memories for some of us. The objective is to understand the structural aspects and processes required to build such an object and apply everything we have learnt so far to replicate a Ferris wheel, albeit in smaller dimensions. We aim to apply the full extent of our knowledge and use as many processes as we can in order to make our project look as realistic as possible.

ACKNOWLEDGEMENT

We would like to express our sincere gratitude to our tutor Dr. Niraj Chawake and our lab-in-charge Mr. Anil Kumar Verma for their support and instruction in this project.

Their support and direction were instrumental throughout theexecution of the project.

We again thank, Dr. Niraj Chawake, Course Instructor, and Mr.Indra Pal Singh for providing us with this opportunity to explore our creativity and create something of our own through the lab manufacturing processes.

We also thank our TAs, V S S Manoj Kumar Gunnabhaktula and Ajay Singh for their valuable time.

Last but not the least, we would also like to extend our deepest gratitude to all the lab staff and guides- Mr. Nripen Deka, Mr. IP Singh, Mr. AK Verma, Mr. Rakesh Dixit, Mr. Gourav Mishra, Mr. Anurag Prasad, Mr. Bharat Raj Singh,and Mr. Pappu, whose constant supervision and encouragement helped us to achieve our goal. They not only helped us throughout the project but also trained us in the various skills necessary to complete the project.

MATERIAL LIST

Part No.	Name of Part	Material Required	Quantity	Process Used
1.	Base	MS Sheet (2mm)	1	Sheet Metal
2.	Arch	MS Flat (3 X 25mm)	4	Sheet Metal
3.	Axis Rod	MS Rod (10mm)	1	Object Formation
4.	Wheel Rim	MS Rod (8mm)	2	Bending, Sheet Metal, Welding
5.	Wheel Spokes	MS Rod (6mm)	12-14	Welding
6.	Cabin	MS Sheet (0.35mm)	4	Bending, Sheet Metal

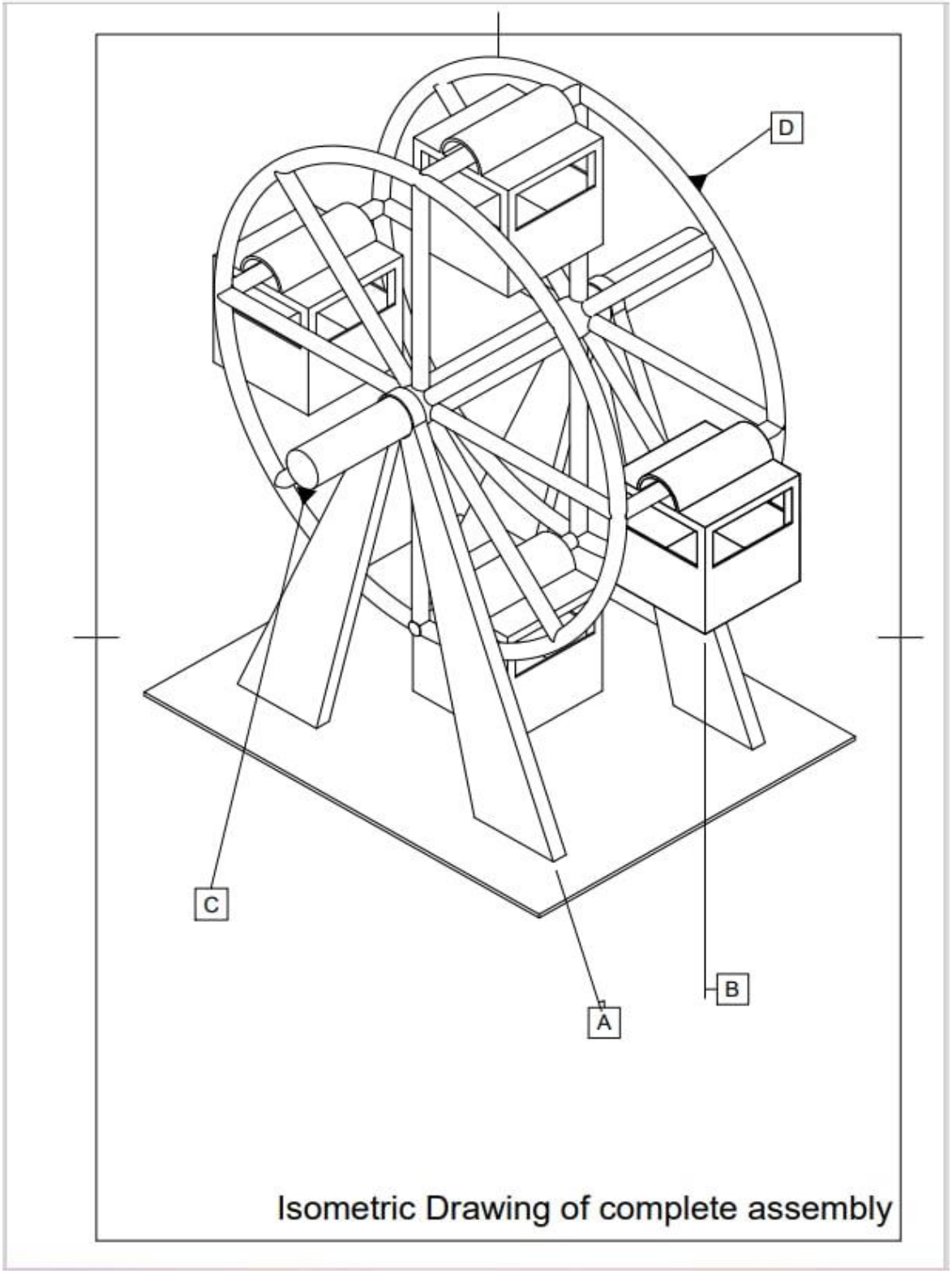
7.	**Axis Rod for Cabin**	**MS Rod (6mm)**	**4-6**	**Welding**

WORK DISTRIBUTION

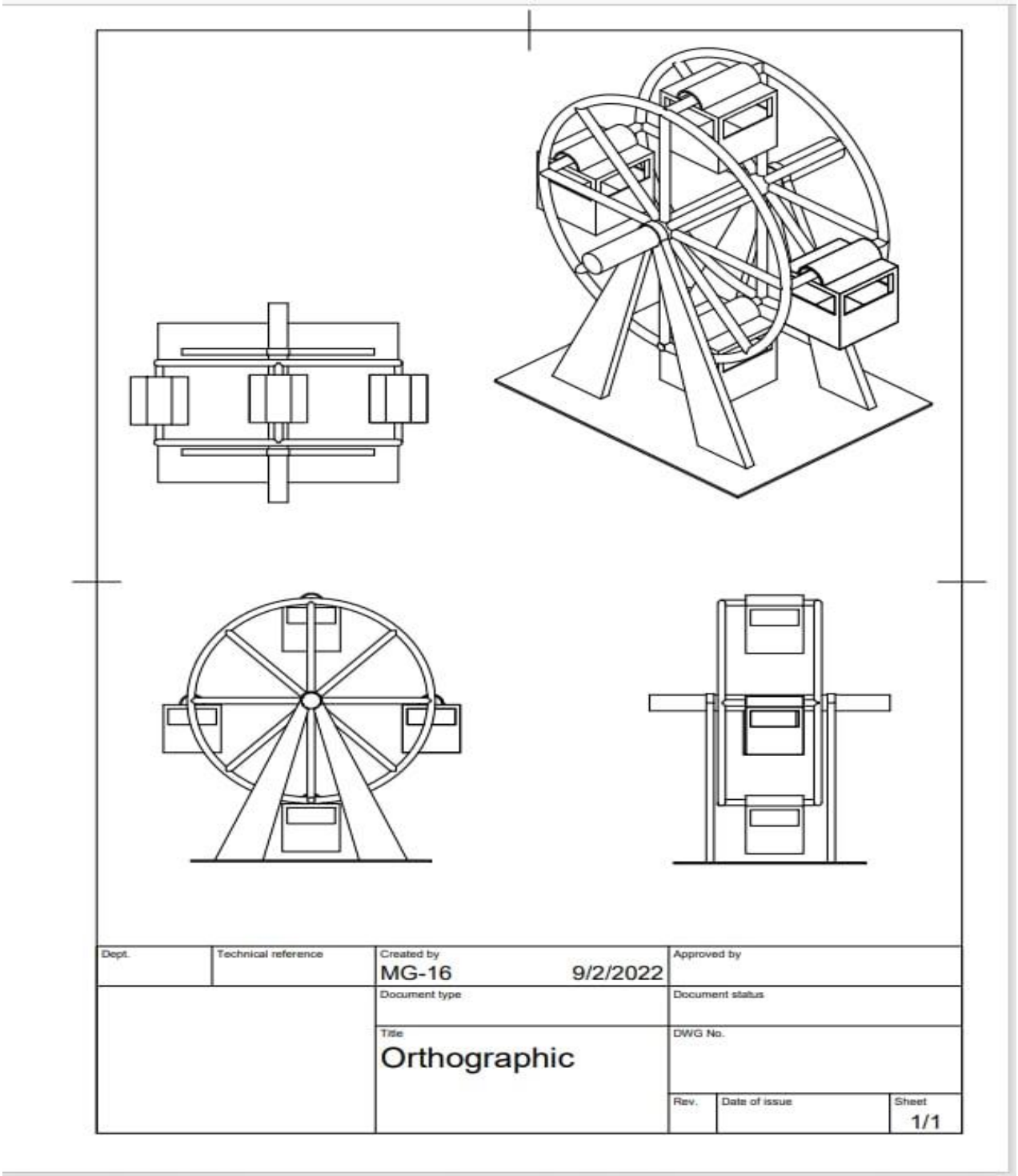
Members	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
VAIBHAV METHI	Base(part 1)	Wheel Spokes(part 5)	Wheel Spokes(part 5)	Wheel Spokes(part 5)	Assembly	Assembly
UMANG SINHA	Base(part 1)	Wheel Spokes(part 5)	Wheel Spokes(part 5)	Wheel Spokes(part 5)	Assembly	Assembly
UJJAWAL DUBEY	Arch(part 2)	Arch(part 2)	Arch(part 2)	Axis rod for Cabin(part 7)	Assembly	Assembly
VANSHIKA GUPTA	Arch(part 2)	Arch(part 2)	Arch(part 2)	Axis rod for Cabin(part 7)	Assembly	Assembly
VIPUL CHANCHLANI	Arch(part 2)	Arch(part 2)	Arch(part 2)	Axis rod for Cabin(part 7)	Assembly	Assembly
VISHAL HIMMAT SINGHKA	Axis Rod(part 3)	Axis Rod(part 3)	Cabin(part 6)	Cabin(part 6)	Assembly	Assembly
YASHVEER YADAV	Axis Rod(part 3)	Axis Rod(part 3)	Cabin(part 6)	Cabin(part 6)	Assembly	Assembly
YERUSU DHARINI REDDY	Wheel Rim(part 4)	Wheel Rim(part 4)	Wheel Rim(part 4)	Axis rod for Cabin(part 7)	Assembly	Assembly

THINGN AM ARVINC HANDR A SINGH	Wheel Rim(part 4)	Wheel Rim(part 4)	Wheel Rim(part 4)	Axis rod for Cabin(part 7)	Assembly	Assembly

COMPLETE ISOMETRIC DRAWING:-

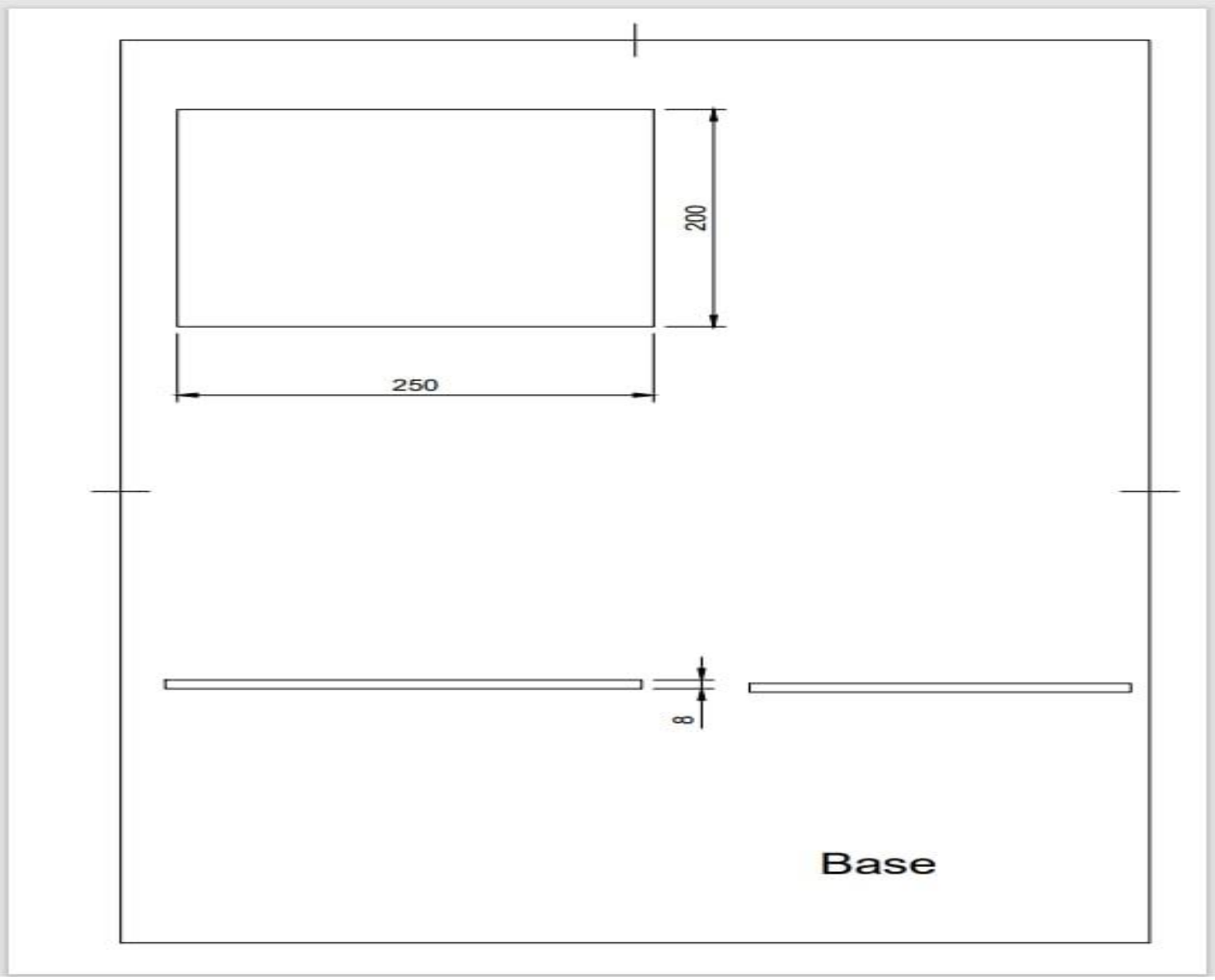


COMPLETE ORTHOGRAPHIC PROJECTION:-



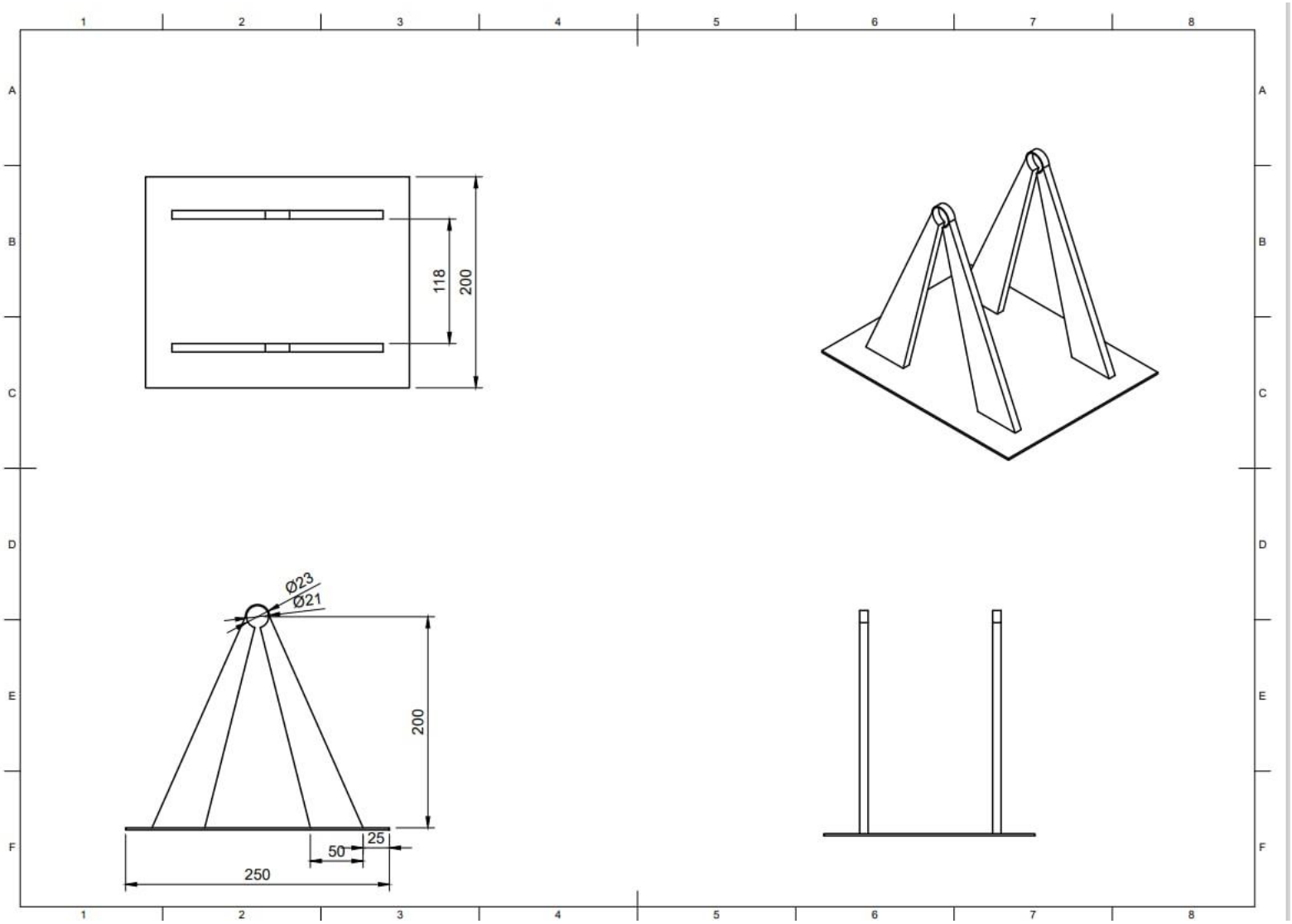
Dept.	Technical reference	Created by MG-16 9/2/2022	Approved by
		Document type	Document status
		Title: Orthographic	DWG No.
			Rev. / Date of issue / Sheet 1/1

BASE:-(Part A)



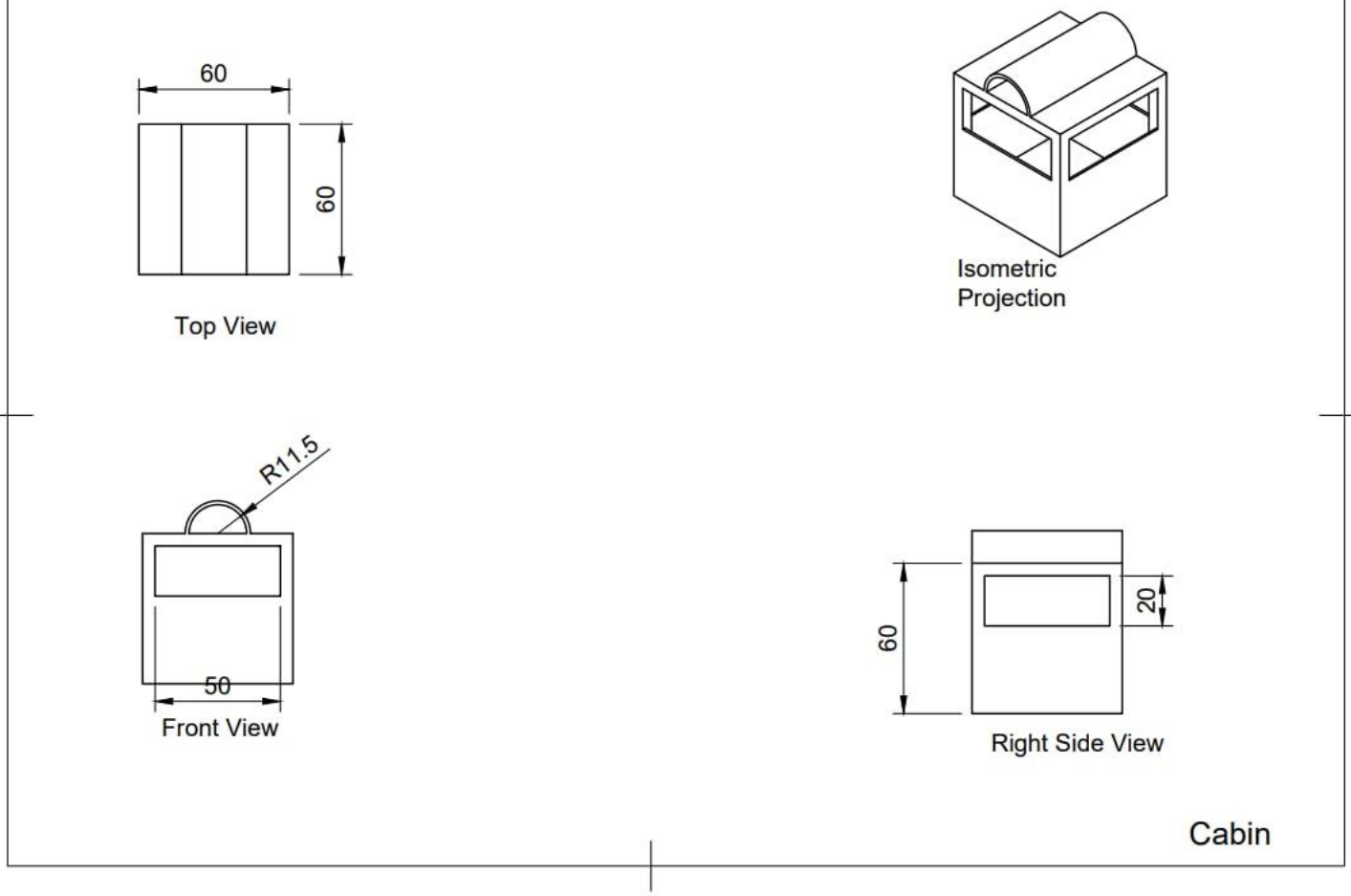
Part No **A**	Part Name **Base**
Material **Mild Steel Sheet(2mm)**	Process **Sheet Metal**

BASE AND ARCH:-(Part B)



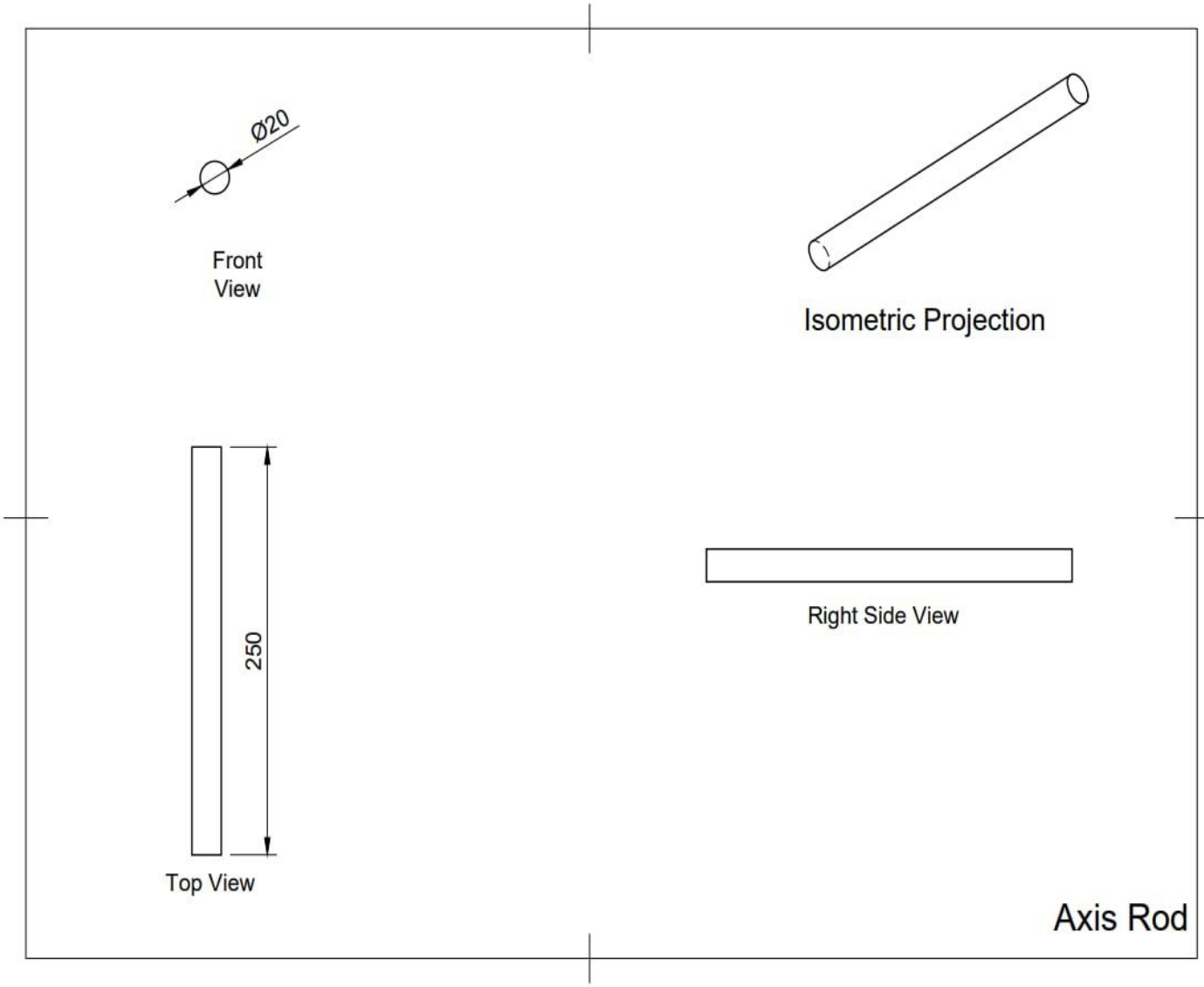
Part No	Part Name
B	**Arch**
Material	Process
Mild Steel Flat(3 X 25mm)	**Sheet Metal**

CABIN(Part C):-



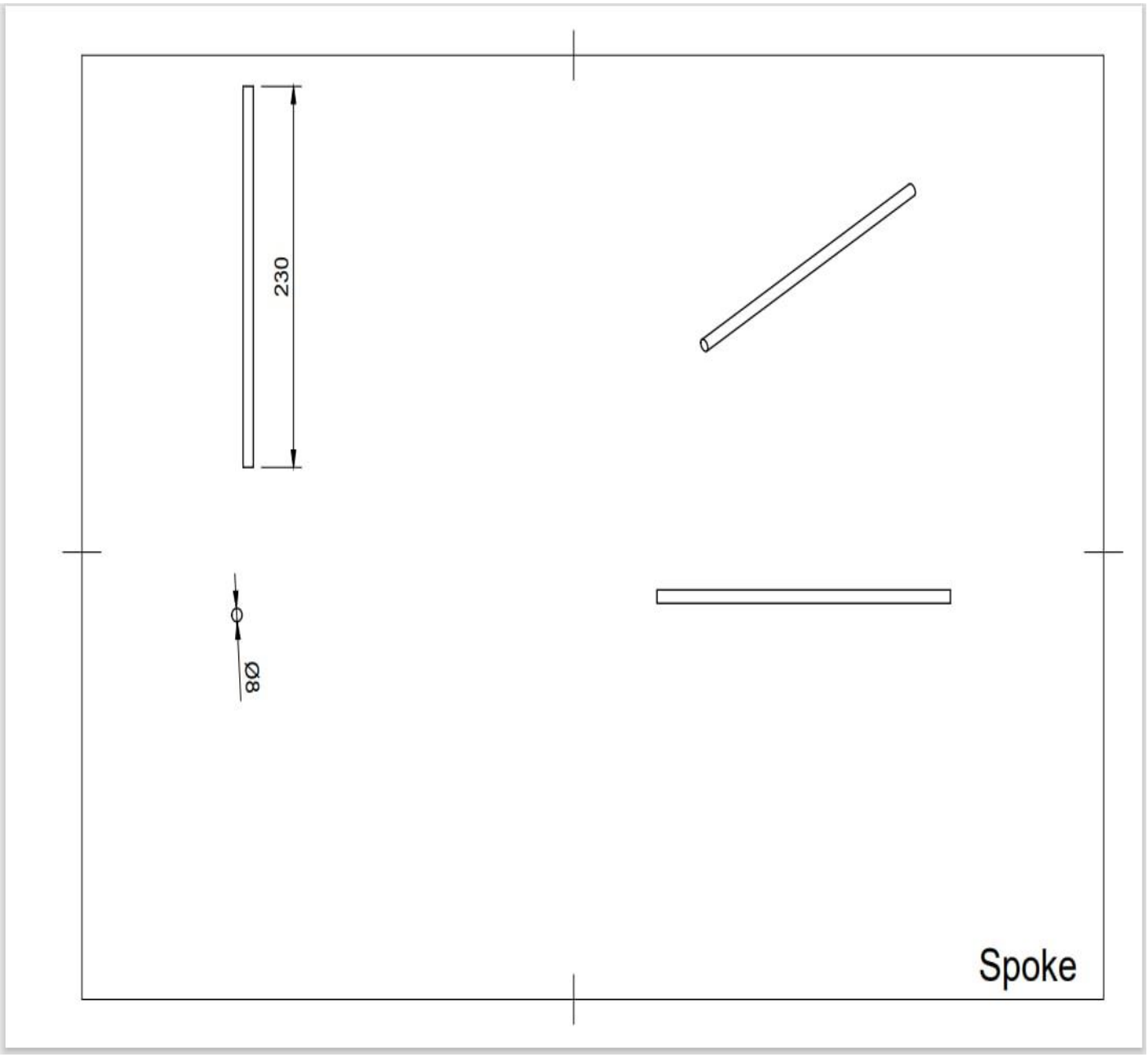
Part No	Part Name
C	**Base**
Material	Process
Mild Steel Sheet(2mm)	**Sheet Metal**

AXIS ROD(Part D):-



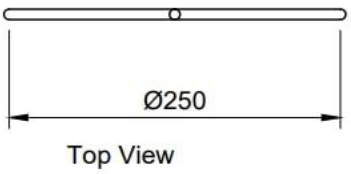
Part No **D**	Part Name **Axis Rod**
Material **Mild Steel Rod(2mm)**	Process **Object formation**

SPOKES(Part E)

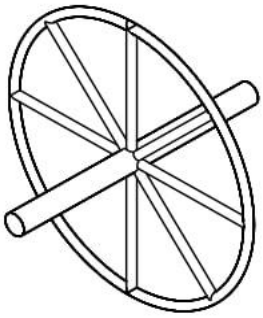


Part No **E**	Part Name **Spokes**
Material **Mild Steel Rod(2mm)**	Process **Welding**

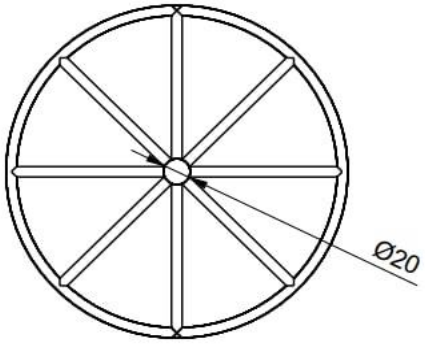
WHEEL RIM(Part F)



Top View



Isometric Projection



Front View

Right Side View

Part No **F**	Part Name **Wheel Rim and Axis Rod(Cabin)**
Material **Mild Steel Rod(6mm,8mm)**	Process **Bending,Welding**

THANK YOU