



Day - 1

CAD Modelling Challenge

Automobile Side Mirror

Date : 01/07/2025

Duration : 24 Hours

Challenge Brief

Design a **Side Mirror** (left or right) for an automobile using **any CAD Software**.

Your model should be:

- **Ergonomic** and **Aerodynamic**
- Styled based on your creative vision: *modern, round, racing*, etc.
- Made of suitable materials (plastic, metal, etc.) – **mirror glass is essential**

Objective

You are expected to:

- Model all individual components of a side mirror
 - Assemble them in **Onshape** or **any CAD software** using proper mates
 - Justify your design choices and showcase your process through screenshots
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General Guidelines

- Research **real-world side mirror designs** for inspiration.
- Explore **CAD tools** and features necessary for modeling, assembling and finish modelling your mirror
- Attach **3–5 in-progress screenshots** during the design phase of Part files or Assembly.
- Submit **all individual part files and the final assembly file**

File Naming Format:

SideMirror_<Part-Name>_<YourName>_<RollNo>

SideMirror_Assembly_<YourName>_<RollNo>

Deliverables

Q1: Design Finalization

Finalize your **style, material, color**, and **dimensions**.

Write a paragraph explaining your design intent and the rationale behind your choices.

Q2: Part Design

Create individual part files including (but not limited to):

- Mirror Glass
- Shell / Cover
- Bracket / Joint
- Base / Mounting Unit

Apply:

- Appropriate **materials** to each part
 - **Visual appearances** (colors/textures)
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Q3: Assembly

- Assemble all parts into a complete side mirror
- Use correct **mechanical mates** (e.g., pivot, fixed, rotate)
- Ensure the assembly resembles a realistic and functional product

Evaluation Criteria

Criterion	Weightage
Complexity & Clarity (finish, detailing, modeling precision)	40%
Effort (research, real-world understanding, completeness)	30%
Creativity (innovation, aesthetics, uniqueness)	30%

Support

For any queries, reach out to:

Email: tech.affairs@iiitdm.ac.in

WhatsApp Group: <https://chat.whatsapp.com/CEjhrp1QoLYLs1m4OgslMT>

Submission

Please Submit Here - <https://forms.gle/uV7ZXBaHxTNSGAU17>



Provide Your Feedback Here.

<https://forms.gle/UC3RbHfAPRZMuAyZ6>



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