

# ROBOTIC DESIGN CHALLENGE

Boost Your Creativity!

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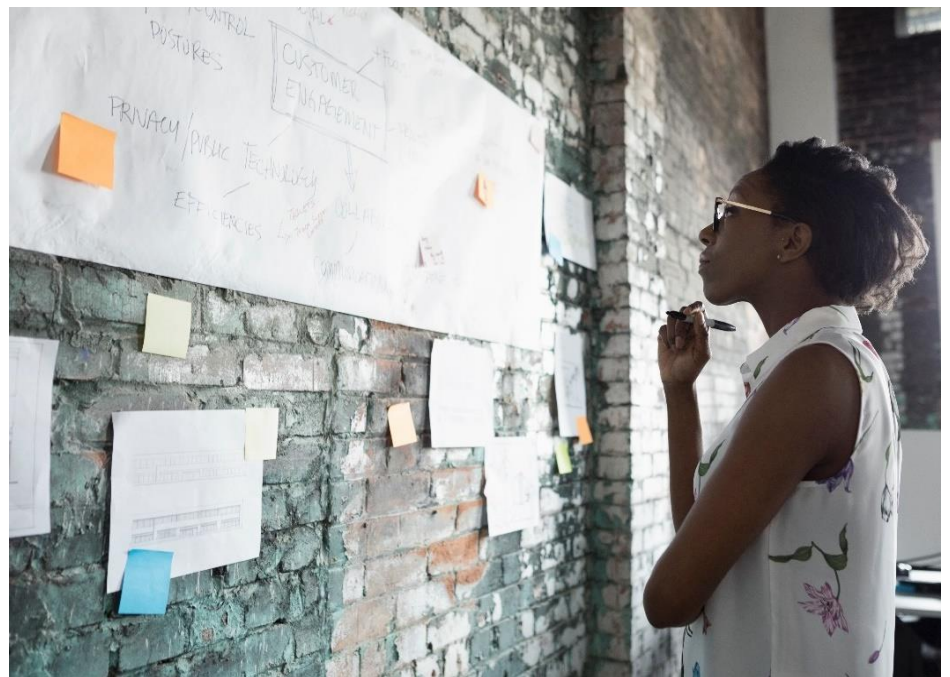


# SUMMARY

The Outer Structure Design Challenge invites participants to redefine the visual and functional aspects of robotic exteriors. With the freedom to choose from a plethora of materials, participants embark on a journey of innovation, seeking to create outer shells that blend aesthetic appeal with practical functionality. Aesthetic design takes center stage, with a focus on color, texture, and overall visual impact, while practical considerations such as ease of assembly and durability are equally emphasized. Adaptability to diverse environments and applications is paramount, driving participants to explore innovative material usage and design concepts. Through a rigorous evaluation process, designs are scrutinized based on creativity, functionality, adaptability, and material selection, with prizes awaiting those whose creations embody the spirit of innovation and ingenuity. In the realm of the Outer Structure Design Challenge, participants transcend traditional boundaries, paving the way for a future where robots not only serve as tools but also stand as artistic expressions of human creativity.

# INTRODUCTION

The Outer Structure Design Challenge ignites a fusion of creativity and innovation in the realm of robotics. Participants embark on a transformative journey, redefining the visual and functional aspects of robotic exteriors. With freedom to explore diverse materials and design concepts, they craft outer shells that blend aesthetic allure with practical utility. As they push the boundaries of traditional robotic aesthetics, adaptability emerges as a defining theme, driving exploration of novel materials and design architectures. Through rigorous evaluation, designs are scrutinized for creativity, functionality, and material innovation, inspiring a future where robots embody the limitless potential of human imagination.





# REQUIREMENTS



## LEARNING PRIORITIES

- Boost Creativity
- Competition Environment



## ADDED PRIORITIES

- Improve Thinking Abilities
- Opportunity For Career



## EMPLOYEE OPPORTUNITIES

- Team Work
- Cooperation

1. **Aesthetic Design:** Participants should create a visually stunning and captivating outer shell for the robot. Consider factors such as color schemes, texture, and overall visual impact.
2. **Functionality and Practicality:** The outer structure should not only be visually appealing but also serve practical purposes. Participants should consider factors such as ease of assembly, durability, and practicality for real-world use.
3. **Adaptability:** The design should be adaptable to different types of robots and uses cases. Whether it's a humanoid robot, a wheeled rover, or a flying drone, the outer structure should be versatile enough to accommodate various functionalities and configurations.
4. **Material Innovation:** Participants are encouraged to explore innovative uses of materials to achieve their design goals. Whether it's traditional materials like metal and plastic or unconventional materials like fabric or recycled materials, creativity is key.





# WHAT'S NEXT

In the Outer Structure Design Challenge, participants are not just focusing on today's robots; they're also thinking about what robots might look like in the future. They're encouraged to use new materials and ideas to make robots that are even better than what we have now. This includes things like using new kinds of materials, like those that are stronger or lighter, or even materials that can change shape. They're also looking at how robots can work better with people and adapt to different situations.

Participants are thinking about what the world might need from robots in the future. This could mean making robots that can work in new environments or help with new tasks. They're also thinking about how to make sure robots are good for the planet and for people, so they're considering things like using less energy or being made from materials that are better for the environment.

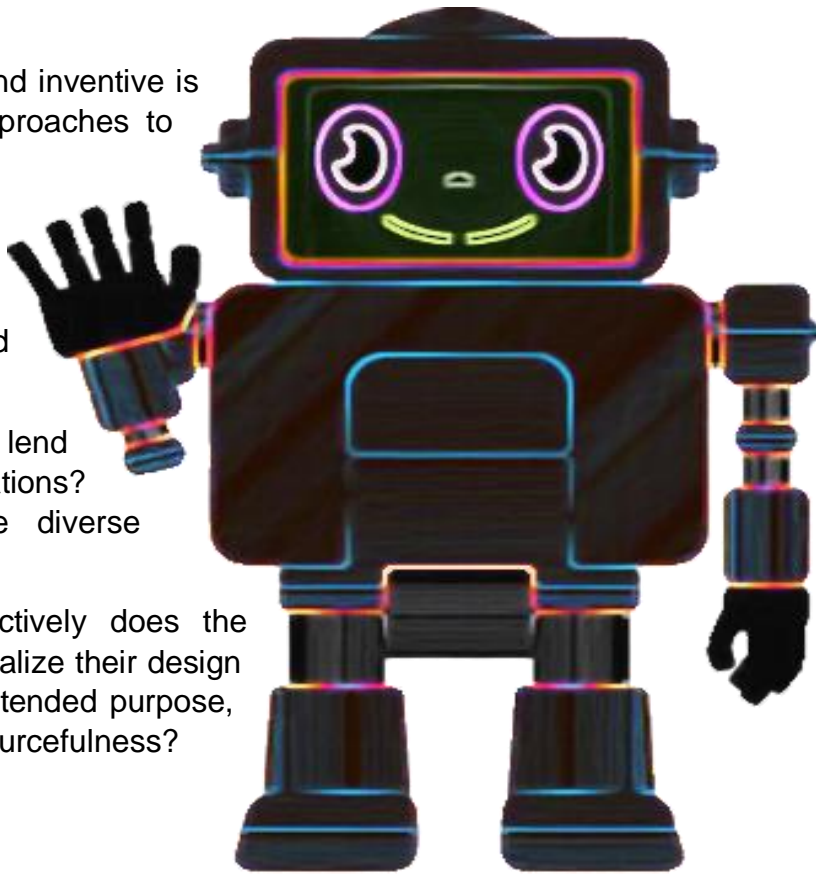
They're not doing this alone; they're working with other people who have different skills and ideas. By sharing what they know and learning from each other, they're coming up with new and better ways to design robots. This collaboration is helping them think about robots in a whole new way and come up with ideas that could change the world.

In simple terms, the challenge is about making robots that are cooler, smarter, and better for everyone. It's about imagining what robots could be like in the future and working together to make that happen.

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## Evaluation Criteria:

1. **Creativity and Innovation:** How original and inventive is the design? Does it showcase unique approaches to material usage and design aesthetics?
2. **Functionality:** Does the outer structure enhance the robot's overall functionality? Does it provide practical solutions to challenges such as protection, mobility, and interaction?
3. **Adaptability:** How well does the design lend itself to different types of robots and applications? Is it versatile enough to accommodate diverse requirements and environments?
4. **Material Selection and Use:** How effectively does the participant utilize the chosen materials to realize their design vision? Are the materials suitable for the intended purpose, and do they demonstrate creativity and resourcefulness?



## Prizes:

1st Place: Certificate and 2000 Rs/- Cheque

2nd Place: Certificate and 1000 Rs/- Bonus

3rd Place: Certificate and 500 Rs/- Bonus

## Timeline:

- Announcement of Challenge: [01/06/2024]
- Submission Deadline: [01/07/2024]
- Judging Period: [15/07/2024]
- Winner Announcement: [21/07/2024]

## Additional Notes:

- Participants are encouraged to provide detailed descriptions, sketches, renderings, or prototypes of their designs to accompany their submissions.
- Innovation in material usage, such as sustainability, recyclability, or biodegradability, will be viewed favorably by the judges.

This adaptation of the challenge maintains the focus on creativity and innovation while embracing the use of any material, allowing participants to explore a wide range of possibilities and showcase their skills and ingenuity. If you have any further questions or need assistance, feel free to ask!

# All The Best!