

# AIR PURIFIER IN DESIGN THINKING...

Design thinking is a human-centered approach to problem-solving that involves understanding user needs, brainstorming creative solutions, and prototyping and testing ideas to develop innovative solutions. When it comes to designing an air purifier using the principles of design thinking, several key steps and considerations can be taken into account:

## 1. Empathize:

- Understand the users' needs and pain points related to indoor air quality. Conduct interviews, surveys, and observations to gather insights from potential users.

## 2. Define:

- Clearly define the problem based on the insights gathered during the empathize stage. For example, identify specific pollutants or allergens that users are concerned about and define the criteria for an effective air purifier.

## 3. Ideate:

- Brainstorm a wide range of ideas for the air purifier design. Encourage creative thinking without limitations at this stage. Ideas could include innovative filtration methods, user-friendly interfaces, or integration with smart home systems.

## 4. Prototype:

- Create low-fidelity prototypes of the air purifier concepts generated during the ideation stage. Prototyping helps to visualize ideas and gather feedback early in the design process. Prototypes can range from simple cardboard models to interactive digital simulations.

## 5. Test:

- Gather user feedback on the prototypes. Understand how users interact with the prototypes, what features they find useful, and what aspects need improvement. Iterate on the design based on the feedback received.

## 6. Implement:

- Develop a high-fidelity prototype or a minimum viable product (MVP) based on the feedback received during the testing phase. The implementation phase involves refining the design, addressing technical challenges, and preparing the product for manufacturing.

## 7. Evaluate:

- After the air purifier is manufactured and released to the market, continuously gather feedback from users. Evaluate how well the product meets users' needs and expectations. Use this feedback to make improvements in future iterations or new product versions.

## Key Considerations:

- **Filtration Technology:** Explore various filtration methods such as HEPA filters, activated carbon filters, or innovative nanotechnology-based filters to effectively remove pollutants from the air.
- **User Experience:** Focus on creating a user-friendly interface with intuitive controls. Consider features such as automatic mode adjustment based on air quality, customizable settings, and mobile app integration for remote control.
- **Aesthetics:** Consider the design aesthetics to ensure that the air purifier fits seamlessly into different environments, such as homes, offices, or public spaces.
- **Energy Efficiency:** Design the air purifier to be energy-efficient, considering factors such as power consumption and the use of smart sensors to optimize energy usage based on occupancy and air quality.
- **Sustainability:** Consider the environmental impact of the materials used in the air purifier and design it with recyclable or biodegradable components. Additionally, think about the product's end-of-life recycling process.

By following these steps and considering these key factors, designers can create innovative and user-centric air purifiers that effectively address the specific needs of users while also being environmentally friendly and sustainable.

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