

Bringing Green Inside: Indoor Gardening

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Summary

Many people do not have access to nature on a regular basis in cities like New York City, where there is little green space and apartment living is common. Making indoor gardening a useful and flexible option for those in cities who wish to add some greenery to their homes is the main goal of our proposal, Bringing Green Inside: Indoor Gardening. We're suggesting a number of easy, flexible indoor garden designs that people can change according to their available space, spending capacity, and level of comfort.

We're especially interested in how indoor gardening helps mental health by providing people with relaxing habits and a feeling of being connected to a living thing. We want to look at a number of gardening systems, take into account their technical characteristics (like water management, lighting, and shelves), and get feedback from users. Our goal is to identify affordable and practical solutions that everyone, whatever their gardening experience or limited space, can try.

We anticipate that the cost of producing these gardens will range from \$200 to \$800. While not everyone needs indoor gardening, we think it might be an important way of improving everyday life.

Introduction

Having ample access to “green space” directly influences the nutritional and behavioral health of those connected. Our proposal addresses this problem in the context of urban residents that have limited or no access to green space. Because of these limitations, their nutritional and behavioral health have been demonstrated to be negatively affected. Some problems include:

- Apartments don't have enough space to grow and farm vegetation
- Sunlight can be limited depending on the space

Our purpose is to address this problem by giving residents of urban community's access to green space with flexible gardening systems. We will create a solution that is capable of solving this issue using layouts of indoor gardening systems as well as studies on the benefits that these systems can offer those who use them. We aim to reduce the negative effects of restricted access to green space that current residents of urban communities are faced with, likely staying in between a 200\$ and 800\$ cost range.

Project Description

Indoor gardening is a great alternative for people who want more access to green areas in urban spaces. The gardens can be adjusted in both size and complexity to fit any apartment. We aim to evaluate different indoor gardening systems and track size, quality, cost, and any psychological effects to determine practicality and benefit. One of the benefits of indoor gardening is that it provides immediate access to nature and fresh greenery. Some people may find comfort and a kind of 'therapeutic escape' in these hobbies. Since indoor gardening is a luxury rather than a need for most people, many people in New York City do not practice it.

Our proposed gardening system includes people with no space. We offer specific compact designs and guides. For instance, the usage of walls instead of the floor through wall-

mounted plants. Also, smaller spaces like windowsills, countertops, etc., can still be used in our gardening system. We list strongly recommended equipment for beginners and additional sections for upgrading tools. These trials will compare different setups by measuring feedback from users. From there, we will select the most efficient indoor gardening method with simple steps and instructions.

Technical components to consider include lighting, shelves, water management, humidity/sunlight control, and pots. Each kit includes standard equipment while offering the flexibility to build upon it if the user chooses to do so. These holistic kits can be sold through packaged delivery and assembled indoors easily by users. The grant provided will help provide the necessary start-up costs to begin our operations.

What sets our product apart from other gardening systems is affordability. Gardening should not be seen as a luxury/unsustainable hobby for those who are interested in it. Our system introduces users to gardening at an affordable price and plenty of support, like guides, detailed setup videos, and personal support. Our gardening system focuses on the user's situation. It is incredibly flexible in terms of customizable sizing and complexity. Potential problems include insufficient space/optimized area. For instance, plants grow well with natural lighting, but artificial lighting can be used as well.

1. Plants can attract bugs and unwanted critters, which may be a problem for some people.
2. We believe the biggest obstacle will be the cost/labor. Since indoor gardening is more of a luxury rather than a need, many people may not find the need to have one. Others may be put off by their inexperience.

To address these obstacles, we offer various solutions. For the bug, we can include tools like sprays/traps for common bugs that may arise. Also, informational guidance on preventative

measures like natural repellents, plants that are less likely to attract pests, and more. For some people, acquiring these components may be difficult due to expenses. To address this, our system offers low-cost starter kits, which cut away the cost of buying each product individually. Furthermore, our kits are standard beginner-friendly, which makes indoor gardening more accessible to those with less experience.

Budget

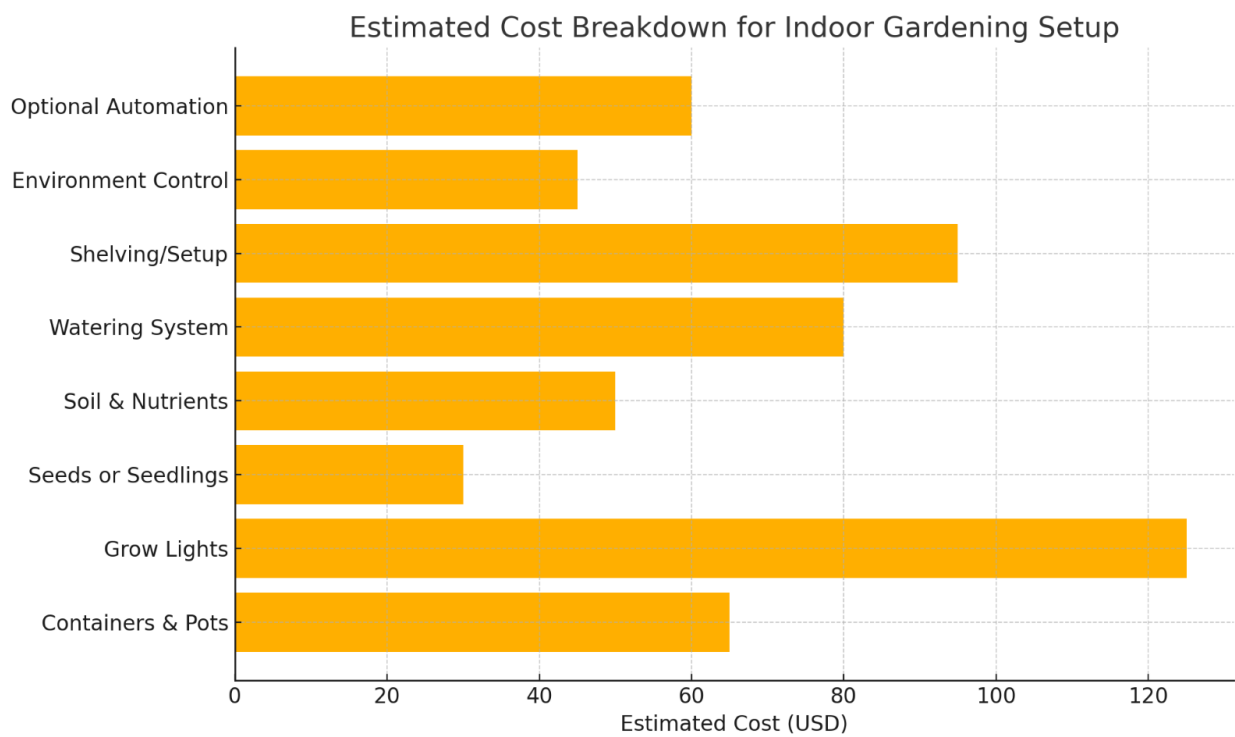


Figure 1: A bar chart illustrating the estimated costs (in USD)

Overall, the project is expected to range from \$200 to \$800 for each indoor gardening setup. We intend for each living complex within the city to contain an indoor gardening setup.

Conclusion

A special and important approach to introduce green space into people's lives is through indoor gardening, particularly for those who live in congested cities where nature seems unattainable. We've learned from this experiment that even seemingly minor adjustments, like putting a few plants on a shelf, may have a major effect on people's lives and emotions. Giving people something they can care for and benefit from physically, emotionally, and mentally is our aim, instead of just adding plants for décor. We also recognize that it's not always simple. Real considerations involve time, money, and space, and not everyone is comfortable beginning something new. But we think this concept can work for a wide range of homes and people by providing customizable layouts, simple instructions, and possibilities for people of all skill levels. The main objective of this project is to increase access to mental health. Even in the center of a busy city, especially one like ours in New York, indoor gardening offers people a tiny opportunity to take control, slow down, and feel a bit more connected.

References

1. Tawfiq Alrawashdeh, et al. "Smart Indoor Gardening: Elevating Growth, Health, and Automation." *Bulletin of Electrical Engineering and Informatics*, vol. 13, no. 3, 2025, pp. 1762–1770, beei.org/index.php/EEI/article/view/7101/3711.
2. "Indoor Gardens – Gardening Solutions." Ufl.edu, 2024, gardeningsolutions.ifas.ufl.edu/plants/houseplants/indoor-gardens/. Accessed 6 May 2025.
3. Kylene. (n.d.). *How to Grow an Indoor Survival Garden*. The Provident Prepper. <https://theprovidentprepper.org/how-to-grow-an-indoor-survival-garden/>
4. (2023). *How urban gardens create greener, healthier cities* | *The Wilderness Society*. (n.d.). www.wilderness.org. <https://www.wilderness.org/articles/blog/how-urban-gardens-create-greener-healthier-cities>

