**The i-Sprout Green Box**

**Title:** The i-Sprout Green Box

**Invention:** This invention is an expandable and collapsible modular cultivation system intended for use in vertical farming or plant factories. It includes the capability to expand or retract in size to fit any volume or spacing restrictions, which efficiently maximizes crop productivity.

**Background:** In an effort to reduce the amount of water and land used to cultivate crops, many farms have resorted to vertical farming and plant factory methods. These methods have shown to effectively produce crops with 97% less water than traditional farming arrangements. Due to the confined space in these facilities, many farmers seek ways to maximize the amount of space available to them. The i-Sprout Green Box helps resolve this issue by providing the market with an expandable/retractable growing tray system that can conform to various shapes and sizes in order to maximize the amount of space allotted. This will help farmers who use vertical farming and plant factory methods to achieve their goals of preserving water and the environment without severely diminishing their yields in crop productivity.

**Applications:**
- Vertical farming
- Plant factories

**Advantages:**
- Portable
- Maximizes crop productivity
- Allows for an efficient use of space within the volume of growing unit or structure
- Uses less water
- Produces a small carbon footprint
- Helps address problems related to increasing population
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