

Plamp - The colorful watering reminder

Basically everyone has indoor plants at home and appreciates how it makes a room look more lively and cozy. However, it is not always easy to give indoor plants the right care to keep them from wilting and dying. What if there was a way to easier determine if a plant needs watering?

Urbanization in the world has in the past 60 years accelerated, resulting in people living in more densely populated areas and spending a majority of their lives indoors. Another ongoing trend in many countries is an increase in mental health issues, where urbanization is a contributing factor.

Studies have shown that closeness to nature increases our well-being. One way to achieve this indoors is by having indoor plants, or houseplants. However, a common issue with having plants in your home is that most of them need to be watered regularly to thrive. Living a stressful life, having no interest or lacking knowledge about houseplants easily makes you forget to water them, causing them to wilt or keeping you from having them in the first place.

The purpose of this master's thesis was to develop a product that eases the nursing of houseplants, to encourage people to have more plants in their homes.

The development process started off by conducting a survey to discover people's interest and habits with houseplants. It was discovered that a major reason for forgetting to water indoor plants is that the feedback received of their need for watering is rather low. Upon doing a market research, few watering reminders were found that gives active feedback from the plant. It was therefore interesting to explore how a product could be developed that increases the feedback, communicating a plant's access to water.



By making simple prototypes and conducting user studies, insights were gained on how the soil moisture level of a plant could be communicated in a smart and easy way. Different concepts for a product were then generated and evaluated before choosing a final concept that was made into a functional, high fidelity prototype.

The final concept, called Plamp, is a unique product that by the use of a moisture sensor connected to an LED visualizes a plant's need for watering. By placing the sensor into the soil of a plant pot, Plamp uses a red and green color scale to communicate the plant's access to water. Plamp is also programmed to turn on automatically when the soil becomes too dry, notifying the user when watering is due.

The result of this master's thesis was a concept for a product that shows good potential in having a positive effect on people's watering habits, making it more fun to keep track of and care for your plants.