THE INTELLIGENT COMMUNITY GARDEN

Project proposal

This project focuses on developing sustainable technology, which benefits all society. First, even at the current level of population, we are no longer able to sustainably produce food. Most global farmland is already in use. While the population continues to grow, the land usable for farming is decreasing due to climate change. However, one answer to this challenge is high intensity urban food production. Second, to achieve global impact, we must make this technology accessible to all citizens regardless of their background or technological skills. Hence, we have built an intelligent community garden prototype.

In the intelligent community garden, vegetables and herbs develop in growing units which are monitored with an IoT-system. Each unit sends its data to a database in a cloud server. Users can monitor each unit's situation via a web or cellphone dashboard. In case of problems, the units will send alerts directly to the users' cell phones.

The aim of this student project is to:

(1) develop the concept of intelligent community gardens to make them more accessible

(2) expand the aeroponic unit currently in use into a more user-friendly and accessible model for lay citizens.

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