

Building an automatic nutrient solution mixing system for greenhouses.

Trinh Thi Lieu

Abstract: This topic focuses on building an automatic nutrient solution mixing system for plants in greenhouses. The context of the topic is defined by the need to optimize the hydroponic cultivation process to increase the efficiency and quality of agricultural products. The project's objective is to develop a comprehensive solution including both hardware and software, integrating sensor technology and signal processing to automate the mixing process according to the nutritional requirements of each plant type. The research method combines theoretical knowledge of nutritional chemistry with experimentation to validate the system. The expected outcome of this project is a highly applicable solution, contributing to the sustainable development of urban agriculture.

Keywords: Automated mixing system, Plant nutrition, Hydroponic greenhouse, Sensor technology, Urban agriculture