

Introduction

Aquaponics is a combination of raising fish and hydroponics (growing plants in water and without soil), together in one integrated system. The purpose of this project is to build an automated aquaponics system. This would require the system to regularly check its temperature, pH level, and lighting. Then either adjust itself or notify us when outside of a specified range. If done correctly this system will be highly productive and conserve large amounts of water. In an aquaponics system, plants receive their nutrients from fish waste. Beneficial bacteria converts the ammonia found in fish waste into nitrates, which serves as a great food source for plants. In return the plants filter the harmful waste from the water and return clean water to the fish. Then the cycle repeats. To avoid overfeeding, the fish will be fed daily by an automated system.