

Abstract

Our project focuses on building a robot apparatus that will use computer vision to maintain a garden. This includes distinguishing between different crops and weeds and performing actions like watering, plucking etc. This is a practical way to decrease amount of manual labor, optimize use of farming resources and reduce costs associated with human error. A core part of the process includes using convoluted neural networks to recognize plants using a mounted camera and sending signals to the apparatus to initiate the appropriate action based on the plant. This report will focus on challenges, configuration choics, results, cost analysis and future work.