Automatic Plant Staking Machine

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Abstract: *The purpose of this research is to present a novel approach to automate the process of plant staking in agricultural and horticultural practices. The proposed solution aims to enhance the efficiency and effectiveness of plant staking operations by reducing manual effort and improving the accuracy of plant placement and support. The automated plant staking machine described in this study incorporates advanced robotics and computer vision technologies to identify and stake plants with minimal human intervention. By leveraging machine learning algorithms and image processing techniques, the system can analyze plant characteristics, such as height, growth patterns, and structural stability, to determine the optimal stake positioning and plant support requirements.*

Keywords: Robotic arm, equipped with a specialized end-effector for staking, and a vision system comprising of cameras and sensors

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