

عنوان مقاله:

Dynamics Analysis of Obstacle Avoidance of Tomato Side Branch Pruning Robotic Arm

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خلاصه مقاله:

The side branches in tomato plants have a great impact on tomato yield and fruit quality and the pruning work is now basically done manually, which has high labor intensity and high-risk factor. The elevated cultivation of tomatoes was taken as the objective of this research and ۶ degrees of freedom P-R-R-R-R-R tomato side branch pruning robotic arm was proposed. The dynamic simulation of the robotic arm in the obstacle environment was completed by ADAMS. Simulation results showed the angular velocity and angular acceleration curves of each joint. A trajectory planning method combining Cartesian space and joint space was proposed to ensure that the robotic arm can avoid obstacles .while effectively reducing the impact during operation

کلمات کلیدی:

.ADAMS, Dynamic simulation, Elevated tomato, Trajectory planning

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