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(57) Abstract :

An onion harvesting device, comprises of a housing 1 constructed in proximity to an onion farm, multiple motorized wheels 2 are configured underneath housing 1 for providing movement to housing 1 along farm, an image capturing module 3 for capturing and processing images of farm, a sliding unit 4 attached with a pair of telescopic rods 5 for providing movement to rods 5 in order to align rod 5 with detected onion, a thermal based imaging unit 6 for capturing and processing images of onion, a motorized spade 7 arranged with each of rods 5 to grip and extract onion from soil, a sorter conveyor 8 for accommodating extracted onion, a vibration unit for generating vibrating movements to separate soil from onion, a robotic gripper 9 for gripping clean onion and a telescopic blade 10 for cutting onion leaves that are further stored in container 11 arranged beneath gripper 9.

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