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(57) Abstract :
An adaptable foam-sheets removal assistive device comprises of a platform 1 developed to be positioned on a ground surface, plurality of wheels arranged underneath the platform 1 to move the platform 1 over the surface in proximity to a vertical support, an artificial intelligence-based imaging unit 2 installed on the platform 1 and paired with a processor to determine positon of a foam sheet on the vertical support, a plate integrated on the platform 1 by means of a hydraulically operated hollow rod to extend/retract for positioning the plate in proximity to the detected foam sheet, a motorized cutter 3 integrated on the plate by means of a robotic link to position the cutter 3 in proximity to the evaluated distances, followed by actuation of the cutter 3 to rotate for cutting the foam sheet from the distances, and a tactile sensor is embedded on the cutter 3 for determining hardness of the foam sheets.

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