

CLIMBING ROBOT WITH SURFACE TRANSITION AND END-TO-END WELDING CAPABILITIES FOR CONFINED-SPACE APPLICATIONS

ABSTRACT

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The disclosure relates to a welding robot having a carriage, a straight-line mechanism, a welding torch module and a self-alignment module. The carriage is configured to provide surface transition capability between orthogonal surfaces. The straight-line mechanism is configured to enable a welding torch produce straight-line

10 end-to-end welding seam. The welding torch module is configured to support the torch at least while the welding torch is performing welding. The self-alignment module is configured to adjust heading of the welding robot such that the robot is parallel to a target wall.

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(Figure 4)