

Abstract**CRAWLING WELDING ROBOT AND METHOD OF CONTROLLING THE SAME**

A crawling welding robot, including an adjustable magnetic adhesion module (9), wheel-tracked walking mechanisms (2), a crawler frame (1), and a welding load device (11), wherein the welding load device (11) is disposed on the crawler frame (1); the wheel-tracked walking mechanisms (2) are disposed at two opposite ends of the crawler frame (1) for supplying power for crawling of the crawler frame (1); and the adjustable magnetic adhesion module (9) is disposed on the crawler frame (1) and disposed between the two wheel-tracked walking mechanisms (2). The crawling welding robot is enabled by the wheel-tracked walking mechanisms (2) to crawl without rails or guides, has a large weldable range, can move on the surfaces of large and medium-sized flat or curved structural members to be welded, can vertically crawl on the wall, and can perform a welding operation when moving either forward or backward, so that the welding of the large and medium-sized structural members at all positions is achieved, the auxiliary welding time can be significantly reduced, and the production efficiency is high; the magnitude of the magnetic adhesion force is adjusted by the adjustable magnetic adhesion module (9), so that the crawling welding robot can crawl on a flat plate and a curved plate with large curvature and has high adaptability to the working environment.

[Figure 1]