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## Automatic control system of high precision welding of workpieces in mechanical engineering

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### Abstract

© Published under licence by IOP Publishing Ltd. In this paper, based on the conducted patent research, the system of laser welding control with different geometry of weld and shapes of parts is developed. The method of monitoring the position of the spot of laser radiation in relation to the curved weld is worked out; it is based on the tracking the edges of the welded parts by low-power laser radiation reflected from the surface of the parts. It allows to make the positioning of the focus of laser radiation in relation to the juncture of the welded parts automatically.

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