

0(2)

Welding Robot and Its New Application

Mingzhen Lu; Weiwei Meng

Bachelor's Thesis

SAVONIA UNIVERSITY OF APPLIED SCIENCES
THESIS

Abstract

Field of Study Technology, Communication and Transport			
Degree Programme Degree Programme in Industrial Management			
Author(s) Mingzhen Lu; Weiwei Meng			
Title of Thesis Welding Robot and Its New Application			
Date	25.3.2013	Pages/Appendices	77+6
Supervisor Heikki Salkinoja			
Client Organisation/Partners			
Abstract <p>Earlier when a project needed to build a steel-frame structure, the welder needed to stand on the cage of aerial work platform for a long time. When the welder is tired that is dangerous for him. It also affects the welding quality. In the architecture area, wind energy field and ship-building industry, the worker needs to work on a high place.</p> <p>This thesis has three distinct goals:</p> <p>First, to use the lowest cost to meet the requirements in modern robot industry. This paper provides the choice of components and characteristics of an industrial robot. For example, how to choose right sensor, reducer, motor and welding equipment.</p> <p>Second, to optimize the structure design.</p> <p>Third, to solve the problem of the combination of the robots with aerial work platform.</p> <p>All the goals were achieved. The problem was solved by combining the robot together with aerial work platform, which will help the worker to avoid working in a dangerous environment and also to improve the quality of the work.</p>			
Keywords Robot, Welding, Reducer, Servo motor, Aerial work platform			

