

로봇 안전사고 방지를 위한 비상정지 스위치의 설계지침에 관한 연구

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— ABSTRACT —

Many accidents related to robot operation occur during the robot teaching process. This paper deals with recommendations for the teach pendant design parameters to enhance safety and performances in human - robot interactions. In order to investigate the optimum location and the size of the emergency stop button on the teach pendant, an experiment was conducted with a simulated teach pendant which can accommodate four different locations and three sizes of the button. Under the simulated emergency condition, the reach time to the emergency stop button was measured at random combination of the location and the size of the emergency stop button. The fastest average reach time was attained with 1.5 inch - diameter button on the upper center of the teach pendant.