

ERGONOMICS OF INDUSTRIAL ROBOT: A CASE STUDY OF KAWASAKI
KE610 AT ASSEMBLY SERVICES SDN BHD

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ABSTRACT

In the industrialised era, robots have been used for helping people to do the tedious job where human find it hard to do. This started when industrial revolution started way back at the 18th to the 19th century when major change in agriculture, manufacturing mining, transportation and technology had take place. As time goes by the industrial revolution has been popularised worldwide until come with the implementation of the robot.

With the help of robot in doing tedious jobs there are also other human factors that need to be considered for the effective objective of the implementation of the robot. The ergonomic factor of industrial robot could not be ignored as this could lead to unsatisfactory among operators and in turn it could lead to the user dissatisfactory ranging from unsatisfactory work performance and to the worst case is to permanent injury or fatality.

In this paper the author would describe about the few elements of ergonomics of industrial robot which based on the conceptual diagram in part 1.1 where it involve cognitive of operator with the robot, workplace environment, robot safety feature, the cost which for invest for better ergonomic and the productivity factor which related to job enhancement and body posture.

From the quantitative survey it shows that eight out of 12 elements that the respondents reply with the positive note of the ergonomics of the Kawasaki KE610 pain robot. The eight aspects is easy to maintain, workspace environment safety, workspace spacing, work stress, engineering improvement, administrative improvement, safety design and the level of cumulative trauma disorder. Lastly the author would recommend on ways to improve the research method which is by using advance level of statistical analysis and use the qualitative analysis to better enhance the analysis.