Proceedings of the 8th Annual World Conference of the Society for Industrial and Systems Engineering, Baltimore, MD, USA October 17-18, 2019

Reconfiguration of Didactic Conveyor Belt Using Lean Manufacturing Tools

D.C. Bacre-Guzman, J.A. Chi, N.M. Leal, M.A. Martínez, H.M. Yamallel, S. Torrres, R. López, and L. Fernanda

Facultad de Ciencias Químicas Universidad Autónoma de Nuevo León, Nuevo León, Mexico

Corresponding author's Email: dbacre@gmail.com

Author Note: Professors and students of Universidad Autónoma de Nuevo León, Facultad de Ciencias Químicas.

Abstract: The present research presents the reconfiguration of a conveyor belt used for teaching practices in a higher education school, supported by lean manufacturing tools such as the Jidoka and Andon system. The conveyor belt is located in the methods engineering laboratory of the Industrial Engineering faculty, where it was aimed at seeking its automation and reconfiguration so that it can adapt to the needs of the different practices that are taught in the laboratory. It was possible to implement a Jidoka System so that by means of a sensor indicates when the pieces are out of tolerance showing a light signal, typical of an Andon system. A few bases of the band were redesigned to make them removable and achieve the modularity of the equipment depending on the practice to be performed.

Keywords: Lean Manufacturing, Jidoka, Andon, Reconfigurable Conveyor