ABSTRACT

In the faculty of industrial engineering at Telkom University has several laboratory facilities to support the understanding of industrial engineering students, one of which is the Facility Layout Design Lab (PTLF). But in the course of PTLF itself has not been available learning media shaped model or simulator. According to research (Laksono, et al 2015) it was found that tutorials using props have significant differences that show that tutorials with visual aids are a better method of learning.

The Ulrich-Eppinger method is used for commercial products and focuses on consumer needs. While the Framework Mechanical Design is used for products that are not to be commercialized. But it has added value to the company or organization because it matches the specifications required by a company. By using Framework of Mechanical Design method and tools adopted from Ulrich-Eppinger method, it is expected that this product development process can produce simulator concept which can increase understanding of facility layout learning.

The results obtained from the Framework Mechanical Design simulator stage serve to study unit load theory using WS stacking concept, then use digital display for WS working time and distance between WS, using straight path on item flow, and use MHE conveyor for moving items , And has dimensions 24 x 60 x 24 centimeters. Simulator is expected to increase student understanding.

Keywords: Framework Mechanical Design, Ulrich-Eppinger, Facility Layout, Simulator, Props