

## **ABSTRACT**

### ***DESIGN PROTOTYPE OF CONVEYOR TWO-WAYS BY CONTROLLING SPEED USING PROXIMITY SENSOR AND SPEED SENSOR***

*Nowadays, developments in the field of industrial technology are increasing rapidly, especially in the tea industry. Therefore, the author aims to design a two-way conveyor. On the conveyor, the conveyor movement speed is controlled by a controller with the help of a proximity sensor and speed sensor.*

*Conveyor are designed in two ways direction in order to accelerate the processing of tea to become a tea product. The author designs a conveyor that will only active if there is an object is placed on it. Therefore a proximity sensor is needed to detect the object on the conveyor. The conveyor will also be controlled so that the conveyor speed becomes constant. Therefore the conveyor system requires a speed sensor to detect the conveyor speed. The author also uses the Fuzzy logic method to control the conveyor speed.*

*In this study the authors designed a two-way conveyor in the form of a prototype. The conveyor will also only be active if an object is placed on it. When the conveyor delivers the object, the designed conveyor has a speed of (3-4) cm / s. Control method of conveyor was using the fuzzy logic control method.*

***Keywords: prototype, conveyor, proximity, speed, fuzzy.***