

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.