

PROTOTYPING A TOW LINE CONVEYOR WITH BLUETOOTH CONTROLLER USING LINE TRACING ROBOT SPECIFICATIONS

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ABSTRACT

Tow line conveyors are widely used in various industries, warehouses and distribution centers. For light weight irregular shaped products, a tow line conveyor can be built with the combination of desired shaped carrier and line tracing robot mechanism. The line tracing robot's movement is controlled using micro controller and the conveyor can be operated by attaching a Bluetooth module with the main circuit of the tow line conveyor. The on-floor prototype which is created for the research purpose can be applied for industrial use in any small industry which will result in a more economic and user friendly tow line conveyor. By increasing the capacity of the power source and the area of the carrier of the conveyor, medium to large irregular products can also be transported. The hardware design, circuit design, programming and the control techniques of the prototype of tow line conveyor are discussed in this paper.

KEYWORDS: Tow Line Conveyors, Line Tracing Robot, Prototyping Line Following Robot, Line Tracing Robot Specifications