

Design and Modelling of Automatic Potting System for Led & Motor Drivers

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Abstract: *In this Project we will use conveyor belts for large production in small scale industries to fill large quantity of containers easily without creating any messy environment. We will use the proximity sensors to control the flow of containers on the conveyor belt. In project we will use automatic potting machine which will work on programmable logic controller. PLC operates the solenoid valve and conveyor motor. PLC control the main panel and rotation of motor and also give the feedback of rotation so solenoid valve will deliver accurate volume according to our requirement. It may able to work on variable speed as per our requirement, so no foaming problem occurs in operation. It will increase the production rate of the product significantly.*

Keywords: Electronic Gadgets, Potting, Resin, Liquid, etc

REFERENCES

- [1]. D. Baladhandabany, S. Gowtham, T. Kowsikkumar, P. Gomathi “PLC Based automatic liquid filling system” Department of EEE, INFO Institute of Engineering, Coimbatore. “IJCSMC, Vol. 4, Issue. 3, March 2015, pg.684 – 692”
- [2]. Mahesh S. Ghule and Dr. (Mrs.) R.S.Bindu , “Design, Development & Analysis of Vacuum Chamber of Potting Machine”, International Engineering Research Journal Page No 549-556.
- [3]. Nisarg A Solanki, Pratik G Raj, Saumil P Patel and Charmish D Rajput, “Automatic Liquid Filling Machine”, International Journal of Engineering Research & Technology (IJERT) Vol. 4 Issue 05, May-2015.
- [4]. Bipin Mashilkar ,PraseedKumar, Amit Chawathe , Vivek Dabhade , Vighnesh Kamath and Gayatri Patil, “Automated Bottle Filling System”, International Research Journal of Engineering and Technology (IRJET), Volume: 03 Issue: 04, Apr-2016.
- [5]. Bin Hong, Hong-mei Wang, Ju Hu, Qing Liu and Jing Hou, “Development of Resin Vacuum Potting Equipment” International Conference on Applied Mechanics, Mechanical and Materials Engineering (AMMME 2016) ISBN: 978-1-60595-409-7
- [6]. Ameer L. Saleh, Lawahed F. Naeem and Mohammed J. Mohammed, “PLC Based Automatic Liquid Filling System for Different Sized Bottles” International Research Journal of Engineering and Technology (IRJET) Volume: 04 Issue: 12, Dec-2017
- [7]. KomalManhas, Meenakshi Dogra, Rajinder Tiwari and Jamini Sharma, “Design and Implementation of Bottle Filling Automation System for Food Processing Industries using PLC”, International Journal of Power Electronics Controllers and Converters eISSN: 2456-1614 Vol. 4: Issue 1
- [8]. Prof. Deepthi. D, Ananya.R. N, Bharath.K, Lekhana.S and Nikhil.D.J, “PLC Based Automatic Bottle Filling System”, International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE) | e-ISSN: 2278 – 8875, p-ISSN: 2320 – 3765
- [9]. Juliya KV, Mohammed Anas MV , Mubarak and Muhammed Hazil, “Automatic Bottle Filling System”, International Journal of Innovative Research In Management, Engineering And Technology, ISSN (Online): 2456-0448, Vol. 1, Issue 4, May 2016
- [10]. Electric solenoid valve.com Available: <https://www.electricsolenoidvalves.com/blog/how-does-a-solenoid-work/>

- [11]. P. Vijaykumar and K. Anusha, “Automatic Liquid Bottle Filling System by using PLC”, International Journal of Scientific Engineering and Technology Research, ISSN 2319-8885 Vol.07, Issue.03, March-2018, Pages:0424-0427
- [12]. Ashwani Kapoor, Vivek Jangir, Jaswant Kumar, and Gaurav Tiwari, “Automated Bottle Filling System by Using PLC”, International Journal of Management, Technology and Engineering, ISSN NO: 2249-7455 Volume 8, Issue V, MAY/2018
- [13]. Dr. R.K Bansal, Fluid Mechanics and Hydraulic Machines, 9th ed., I.I.T Delhi, 2014