## **IJARSCT**



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 3, Issue 15, May 2023

## Injection Moulding Machine using Pick And Place Robot

Dr. S. L. Kurkute, Dighe Harshada Ashok, Dighe Swamini Gorakhnath, Gaikwad Vrushali Balasaheb

Department of Electronics and Telecommunication Engineering Pravara Rural Engineering College, Loni, India

**Abstract:** Injection molding is the maximum not unusual manufacturing method for polymers. This paper presents a detailed description of the injection molding process, together with its technique parameters and their impact on the molded component. Gating structures play an important function in part great. The injection molding process works while plastic mass flows from gate to gate in a gate device, via gates and into the mould hollow space. Contemporary plastics enterprise uses business robots in all components of plastics manufacturing, along with injection molding related strategies. From loading components into injection molding machines to finishing and assembling injection molded components, the use of robots offers plastics manufacturers a aggressive advantage with huge productiveness gains and excessive satisfactory. Additionally, robots are an increasing number of being utilized in publish- processing outside the injection molding method. B. Welding, assembly and packaging operations because of the developing demand for more bendy answers. Pick and place robots permit agencies to pick gadgets from one vicinity and location them at any other the usage of an automatic answer. Simple responsibilities like lifting or moving an object do not require advanced concept processes. Therefore, the use of human exertions for those responsibilities may be wasted as hard work may be used for different responsibilities that require better intellectual capacity. these repetitive obligations are treated by way of choose-and-place robots. These robots are frequently equipped with sensors and imaginative and prescient systems to raise items from shifting conveyors.

Keywords: Injection Molding, Pick and Place Robot.

## REFERENCES

[1]N.Divya, Dr.Ch.V.S.Parameswara Rao, Dr. S.S.N.MalleswaraRao, (March 2017) "Multiintegral Analysis Of Injection Mould With Hot Runners For Gate", International Journal of Scientific and Research Publications, Volume 7, Issue 3, ISSN 2250-3153

[2]A. Demirer, Y. Soydan, et al. (2007) "An experimental investigation of the effects of hot runner system on injection moulding process in comparison with conventional runner system", Science Direct, Materials and Design 28 ,1467–1476

[3]PK Bharti, M. I. Khan, 2010, "Recent Methods For Optimization Of Plastic Injection Molding Process –A Retrospective And Literature Review", International Journal of Engineering Science and Technology, Vol. 2(9), 4540-4554

[4]Rashi A.Yadav, S.V.Joshi, N.K.Kamble, (December-2012), "Recent Methods for Optimization of Plastic Injection Molding Process - A Literature Review", International Journal of Scientific & Engineering Research Volume 3, Issue 12, ISSN 2229-5518

[5] Ivan W.M. Chana,\*, Martyn Pinfold a, C.K. Kwongb, W.H. Szeto, (2014) "Automation and optimization of Family Mould Cavity and Runner Layout Design (FMCRLD) using genetic algorithms and mould layout design grammars", Elsevier, Computer-Aided Design 47 118–133

[6]Mr P. Vinod, Mr K. Vijaykumar, May -2017 Multi-cavity hot runner injection mould tool polymer", International Research Journal of Engineering and Technology (IRJET), e-ISSN: 2395 -0056, Volume: 04 Issue: 05,

[7]G. Rajendra Prasad, Dr S. Chakradhar Goud, Multiintegral May -2017, "Analysis Of Injection Mould With Hot Runners For Gate", International Journal Of Engineering Sciences & Research Technology, ISSN: 2277-9655

DOI: 10.48175/IJARSCT-10930

Copyright to IJARSCT www.ijarsct.co.in

ISSN 2581-9429 IJARSCT

## **IJARSCT**



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 3, Issue 15, May 2023



DOI: 10.48175/IJARSCT-10930