

{tag} International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

[Volume 176](#)

-
[Number 8](#)

Year of Publication: 2017

Authors:

M. Papoutsidakis, A. Chatzopoulos, D. Piromalis, D. Tseles

10.5120/ijca2017915652

{bibtex}2017915652.bib{/bibtex}

Abstract

This paper describes briefly the construction of a 4 DOF robotic arm and depicts the research, construction and function of the robotic arm and its components. The system has two basic functions. At the automatic function the arm moves an object between to positions. During the manual function a user can control the arm and transport the object using buttons, switches, potentiometers and a joystick. At this function the user can save random position of the arm in memory of the Arduino platform. Then the system is waiting till the proper command is given and moves the robotic arm from point to point as they defined by the user. Moreover forward kinematics equations has been researched and resolved for the system.

References

1. Chatzigiannakis The C ++ language in depth, Publications Kleidarithmos, Athens 2011
2. <http://apothesis.teicm.gr/xmlui/bitstream/handle/123456789/814/sefi.pdf?sequence=1>

3. https://apothesis.lib.teicrete.gr/bitstream/handle/11713/7564/SmaragdakisEmmanouil_XoustoulakisKonstantinos2016.pdf?sequence=3
4. http://okeanis.lib.teipir.gr/xmlui/bitstream/handle/123456789/1700/aut_00550.pdf?sequence=1
5. http://okeanis.lib.teipir.gr/xmlui/bitstream/handle/123456789/1601/aut_00467.pdf?sequence=1
6. https://www.doc.ic.ac.uk/~zf509/Publications/2nd_National_Convention_of_ECE_Students.pdf
7. <https://www.arduino.cc/>
8. <https://forum.arduino.cc/>
9. <https://el.wikipedia.org>
10. <https://servodatabase.com/servo/towerpro/mg995>

Index Terms

Computer Science

Information Systems

Keywords

Robotic Arm