

# Arduino Based Robotic Arm

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**Abstract:** *With the advancement of technology and innovation at its peak, fabrication of systems and designs akin to human skills are increasingly integrated into working task to cater the rapid surge of human needs. Such innovations are made with the hopes of making peoples live easier. This paper concentrates on the development of a robotic arm which is functional to do a pick and place operation and controlled by using a mobile application via Android phone. Designed to work on predetermined commands, the robot arm has the ability to move in a four-axis direction; upward, downward, left and right direction at a specified angle with 6 servo motors and according to the mobile app specifications. Designed and realized, the robotic arm control is through the use of a mobile application, via Bluetooth module, that has been programmed through Arduino UNO microcontroller.*

**Keywords:** Robotic Arm, Arduino UNO, Bluetooth Module, etc.

## REFERENCES

- [1] Abdullatif Baba: "Robotic arm control with Arduino" Turk Hava Kurumu University Computer Engineering Turkey. Research paper; June 2017.
- [2] Rhianna Cardamone: "A Feasibility and Design Study of a Ship Painting Robot for Oshima Shipbuilding Industry" University of Queensland. October, 2018.
- [3] Virendra Patidar, Ritu Tiwari: "Survey of robotic arm and parameters" (ICCCI-2016), Coimbatore, India, Jan 2018.
- [4] DEVELOPMENT OF A ROBOT ARM: A REVIEW "Ibrahim Sulaiman, 'Engr. Salam M. O. and 'Yamajin Tanimu Department of Mechanical Engineering Pedal Polytechnic PMB 55 Bida, Niger Sto, Nigeria (2016).
- [5] Aqeel, Adnan. (June 21). Introduction to Arduino Uno. Retrieved from [www.theengineeringprojects.com/2018/06/introduction-to-arduino-uno](http://www.theengineeringprojects.com/2018/06/introduction-to-arduino-uno).
- [6] Hemmings, Megan (2018, January 30)