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**ABSTRACT**

The robotic arm is one of the technologies in manufacturing industry and designed to perform pick and place functions. The system is very important to eliminate human errors and to get more precise work. It can also save the cost in long term and help to solve problems and tasks that cannot be done such as on high temperature area, narrow area and very heavy load thing. Robotic Arm is constructed to perform pick and place function. The operating system of smart phone is android which develop effective remoted-control program. This project is used Bluetooth connection to communicate with robot. Wireless control is one of the most important basic needs for this robot. The main idea of this project is to construct a small and simple robot arm control system by using Arduino Mega 2560, HC-06 Bluetooth module, L298N motor Driver, Servo 995 motors, DC motors and CA2596 (DC-DC) Converter. Arduino mega 2560 is used to control the whole system with the help of IDE software and C programming. Four numbers of Li-ion batteries are connected in series for power supply. For carrier, L298 motor driver and four DC gear motors are installed to reach the location of the object that the user wants to pick. The L298 motor driver is set to control the speed of dc motors. The CA2596 (DC-DC) Converter is used to convert 14.8VDC to 5VDC supplied for four Servo motors. The servo motor for waist is to turn left and right. Ther servo motor for shoulder controls forward and backward directions. The servo motor for elbow controls upward and downward directions. The servo motor for gripper is to pick and drop the object. This Robot works in factories and do the same thing over and over again.