WIRELESS CONTROLLED PRECISION ROBOT FOR REAL TIME APPLICATION

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ABSTRACT

The objective of **Wireless Controlled Precision Robot for Real Time Application** is to develop a robot mounted with robotic arm having 3 degree freedom capable of picking objects of various sizes and placing them on the desired platform.

The movable body of robot is controlled by a control circuit consisting of microcontroller AT89S52, relays, motor drivers and RF circuits. The arm of the robot is controlled through parallel port of the computer.

The materials used are acrylic sheets & aluminum to build the body of the robot, gear reduction DC motors for the movement of the robot base. An arm is mounted on the mobile platform which is driven by stepper motor and servo motors. This arm is provided with a two finger clamp used to hold objects for pick & place.

Specifications: The different specifications of the robot are listed below.

Base dimension: 400mm*300mm
Arm dimension: 200mm*60mm
Operating voltage: 12V DC
Speed: 60 RPM
Lifting capacity: 100gms