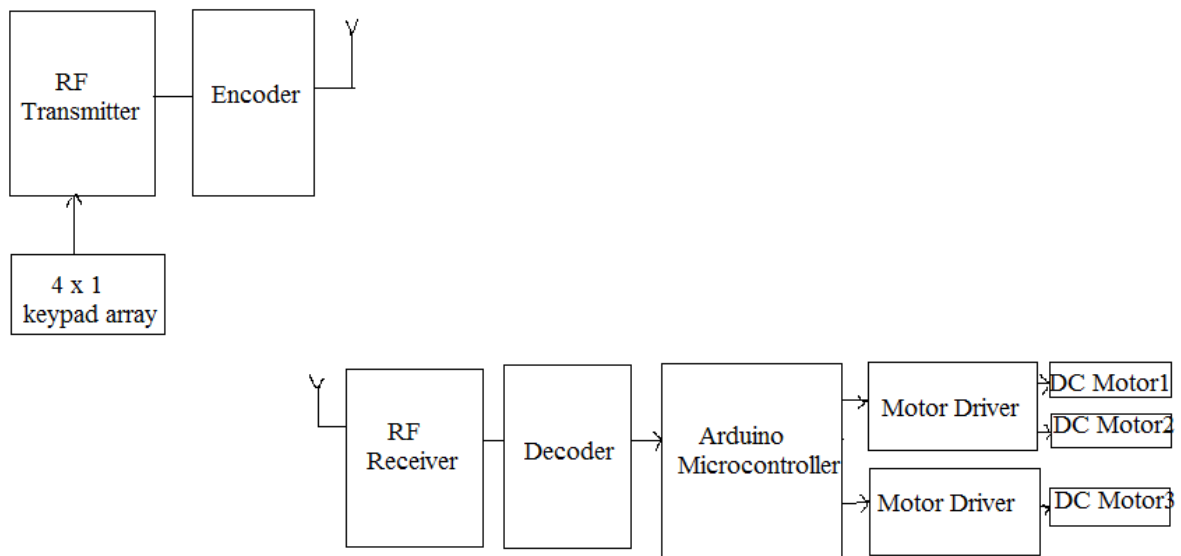


Abstract

Pick and Place robot is used for industrial automation. It is used to pick an object and place it in the desired location. It can be controlled by controlling the movement of its arm for pick and place. RF communication is used to control the robot wirelessly.

Block Diagram



At the transmitter end, there is a RF transmitter to which a 4x1 keypad array is connected. The command signals to move the robot forward, backward and its pick and place arm movements are sent by pressing the buttons of the keypad array. The encoder of the transmitter chip converts the parallel data into serial output and control signals are transmitted at 433 MHz. At the receiver end there is a RF receiver which receives the control signals and the decoder chip converts the serial data into parallel. These control signals are taken by the microcontroller and used to drive two motor driver ICs which are used to move the two dc motors in different ways. The Arduino does not have sufficient current to drive the motors. So a motor driver IC is used.