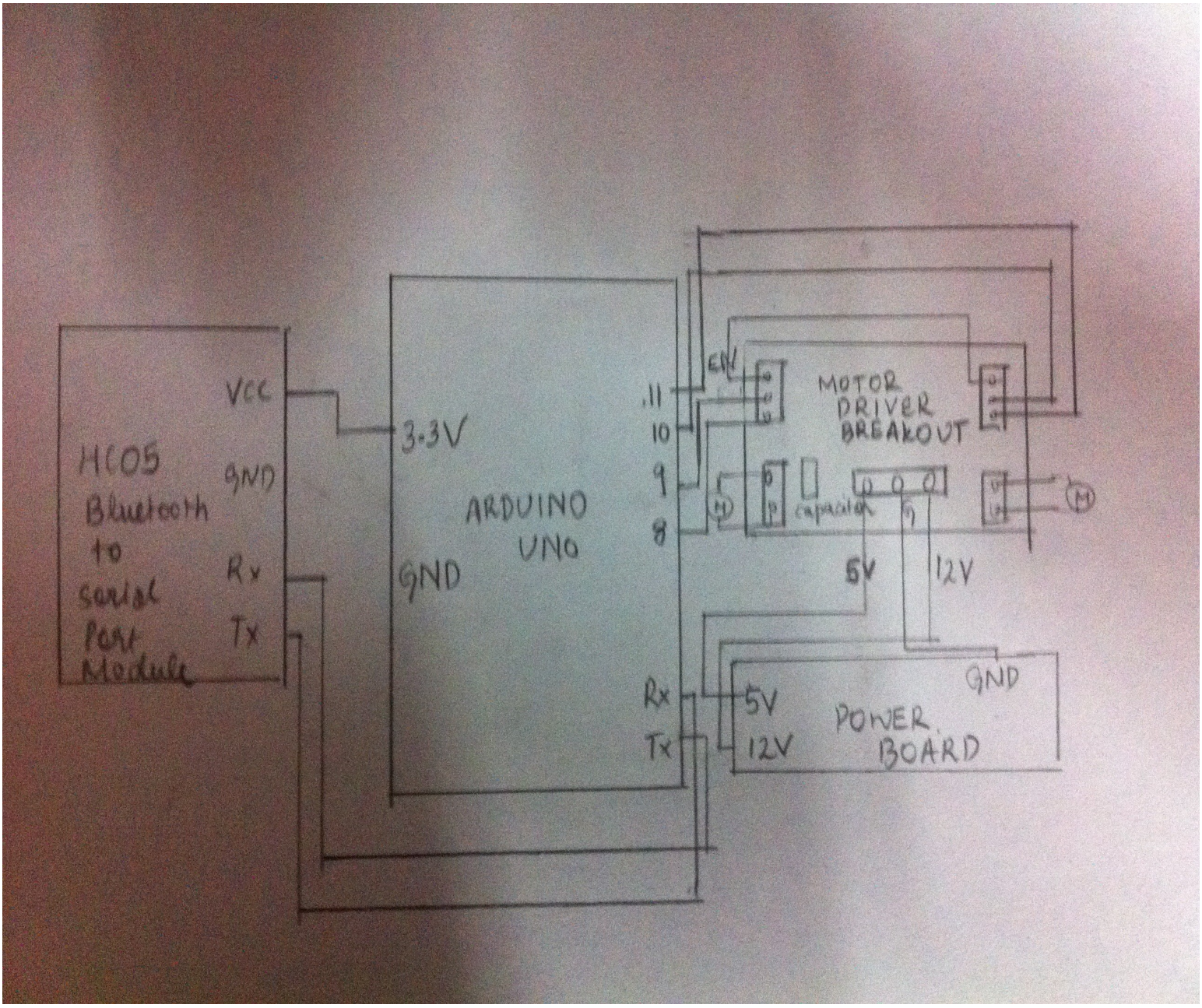
# MPCA PROJECT REPORT

## ABSTRACT

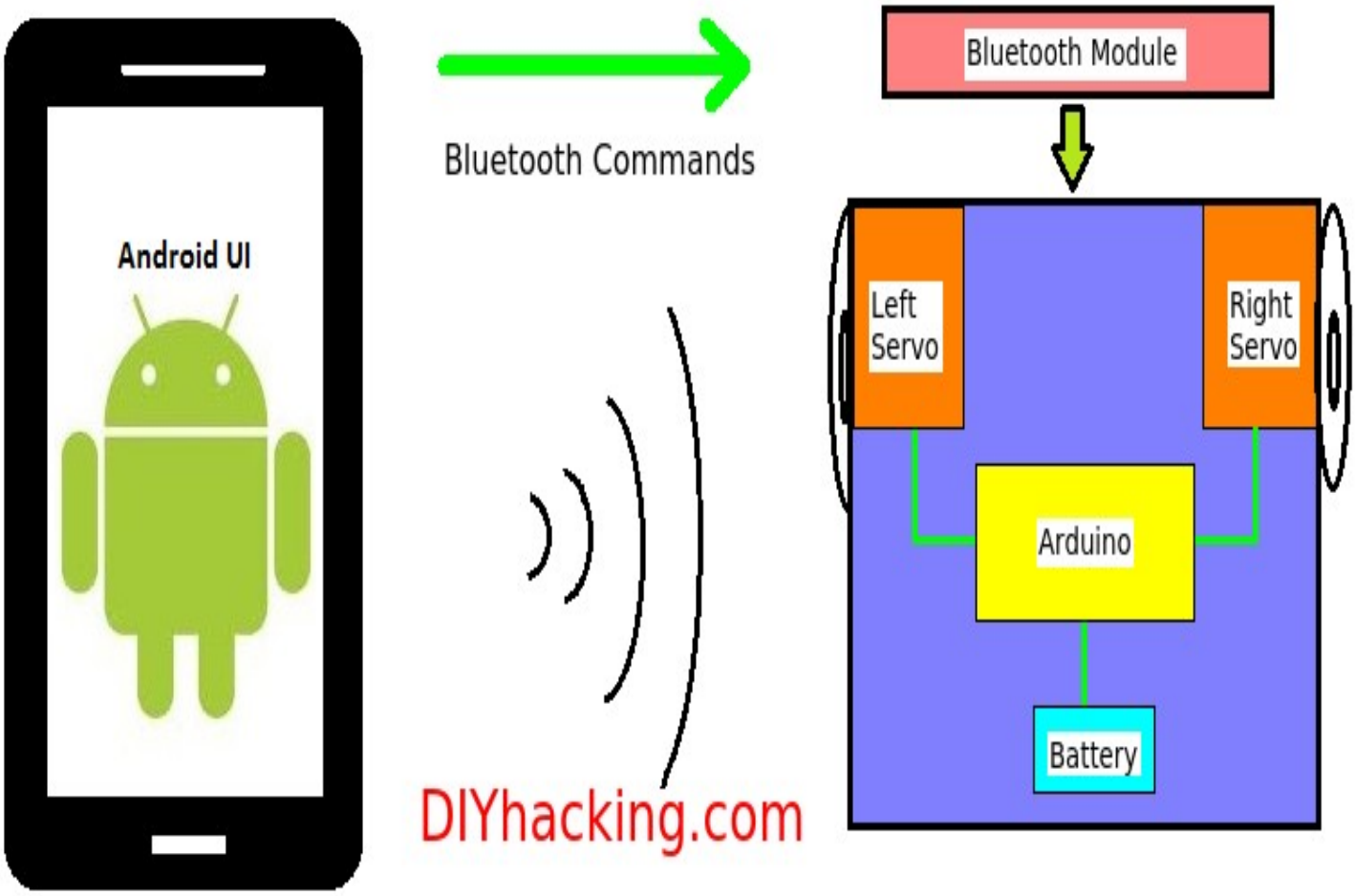
**Bluetooth** is a wireless technology standard for exchanging data over short distances (using short-wavelength UHF radio waves in the ISM band from 2.4 to 2.485 GHz[4]) from fixed and mobile devices, and building personal area networks (PANs).We have built a downscale model of an android controlled robot which communiocates via bluetooth to the bluetooth module present in the robot.The major components used here are the ArduinoUno ATMEGA328P .HC05 Bluetooth to serial port module,L293x Quadruple Half-H Drivers.

HC-05 module is an easy to use Bluetooth SPP (Serial Port Protocol) module, designed for
transparent wireless serial connection setup.
Serial port Bluetooth module is fully qualified Bluetooth V2.0+EDR (Enhanced Data Rate) 3Mbps Modulation with complete 2.4GHz radio transceiver and baseband. It uses CSR Bluecore 04-External single chip Bluetooth system with CMOS technology and with AFH(Adaptive Frequency Hopping Feature). It has the footprint as small as 12.7mmx27mm. Hope it will simplify your overall design/development cycle.

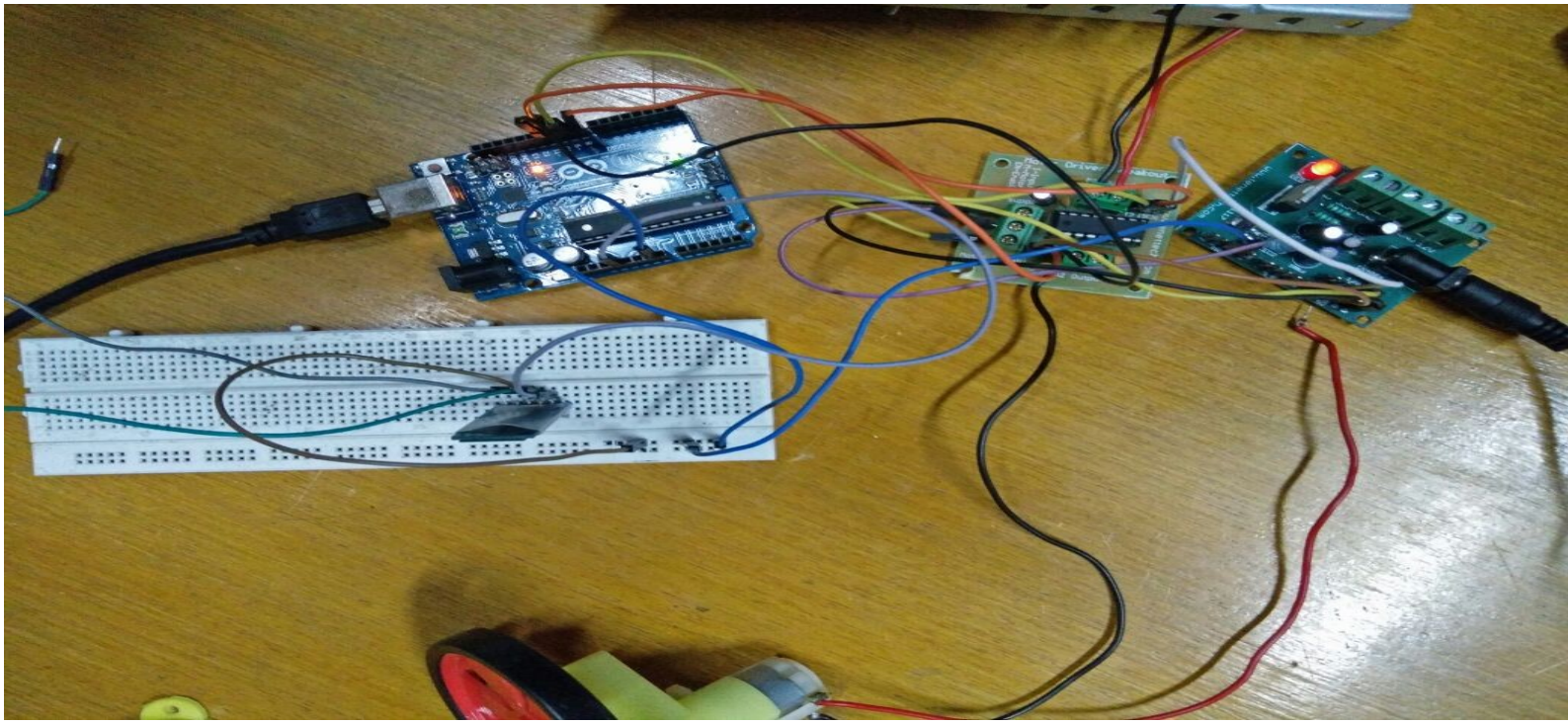
# CIRCUIT DIAGRAM

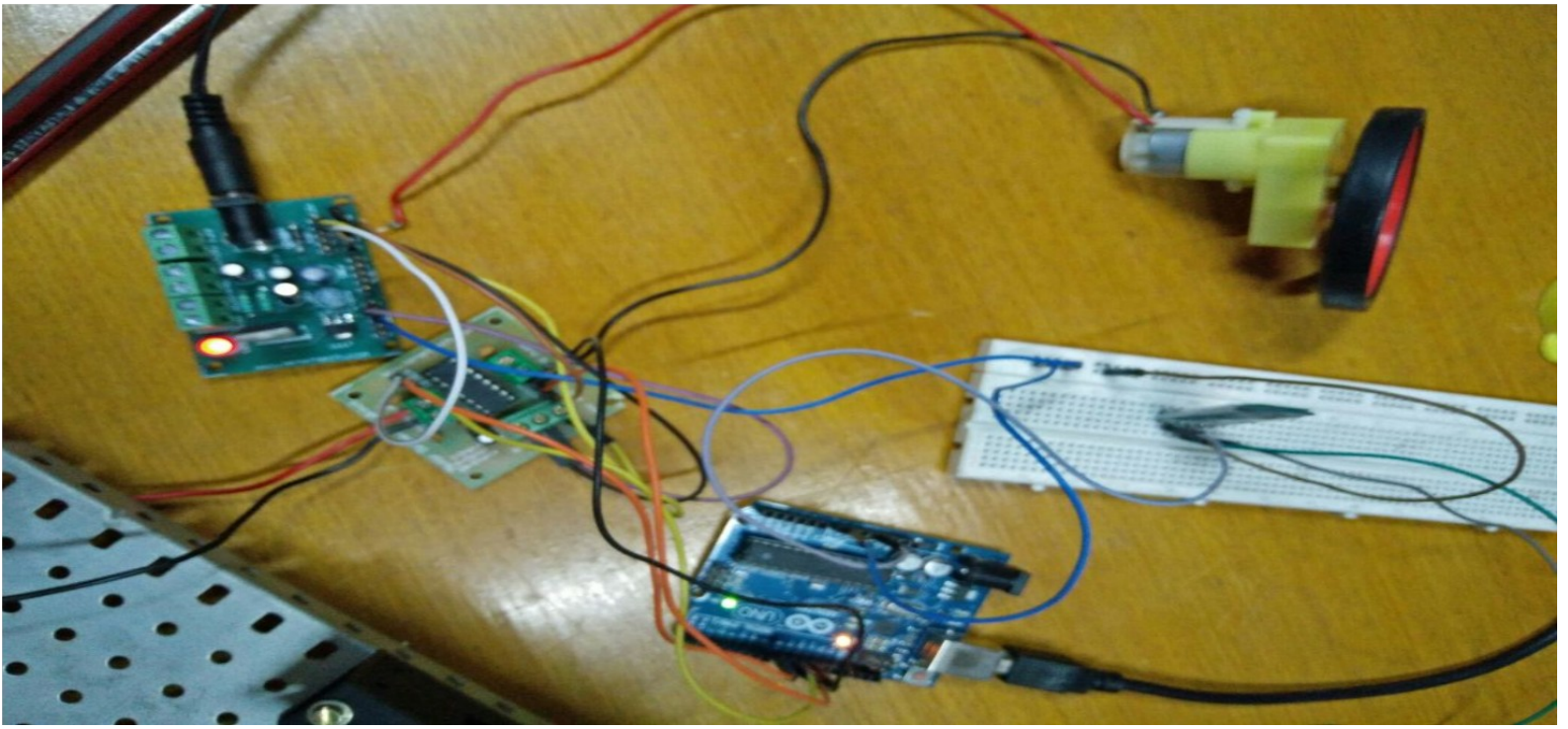


# BLOCK DIAGRAM



# WORKING MODEL PICTURES





# BRIEF DESCRIPTION

The android application controlled robot communicates via bluetooth to the bluetooth module present on the robot. While pressing each button on the application, corresponding commands are sent via bluetooth to the robot.

The commands are sent are in the form of ASCII. The arduino on the robot then checks the command received with it’s previously defined commands and controls the servo motors depending on the command received to cause it to move forward, backward, left, right or to stop. Thus allowing us to create an android controlled robot