Bot Specifications:

The bots shall be tested for their GRIPPING and LIFTING mechanism. Bots shall be needed to grip and lift balls of diameter ranging between 4-10cms

(1) Requirements to make a level-1 bot:
    (1) 12V DC motors - 4 in number, 1 for each wheel.
    (2) 4 wheels.
    (3) DPDT switch – 2 in number (One for bot's movement, other one for gripping ang lifting mechanism).
    (4) Chassis.
    (5) Connecting Wires.
    (6) Soldering Machine.
    (7) Nuts, Bolts, etc.
    (8) Pulleys and DC motors (as many as suited to your Gripping and Lifting mechanism).

(2) Chassis:
    a. Chassis is the basic body/framework for your bot.
    b. Chassis can be made using wood/aluminium or any other material of your choice.

(3) Gripping:

    a. To prepare a clamp, you can use 2 aluminium squares coated on the inside with rubber(to ensure a good grip). These two squares can be connected to the shafts of the motors in such a way that when the corresponding switches are pressed, they move in opposite direction and clamps move inside and hold the ball.
    b. Any other gripping mechanism can also be designed as per your wish that confines to the rules of a level-1 bot.

    c. **LINKS**:
    http://www.youtube.com/watch?feature=fvwrel&NR=1&v=HMQ4u9UlPSQ

    http://www.grippers.com/

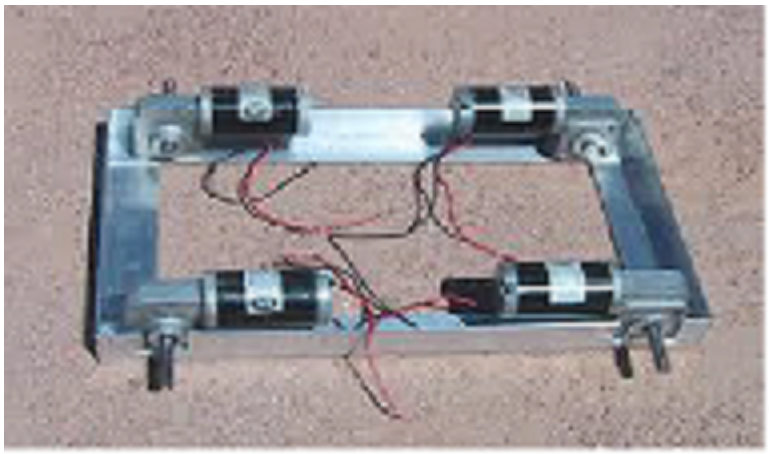
(4) Lifting:
    a. Lifting mechanism can make use of a pulley and a DC motor.
    b. This mechanism can be similar to that of drawing water from a well.
    c. Any other lifting mechanism can also be designed as per your wish that confines to the rules of a level-1 bot.

(5) Power Supply:
    DC Power supply of upto 18V will be provided for the event to each of the bots.Alternately, bots can also place a series of batteries on the chassis to provide a direct supply to the bot from chassis.In the latter case, the potential difference between any 2 points on the bot should not exceed 18V.

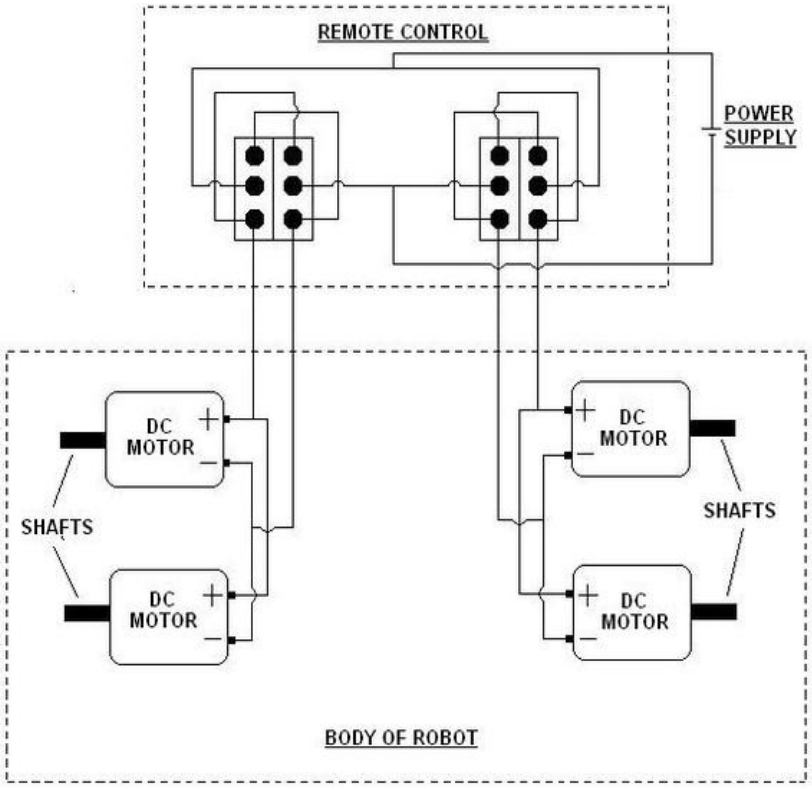
The gameplay for each arena and the design of each arena has been explained in the “Arena” section.

See images below for **CIRCUIT DIAGRAM, IMAGES :**

(1) Chassis and wheels:



(2) Circuit Diagram:



(3) DPDT Switch: