Project Name: **Weight Lifting Bot**

Main Idea: We are looking to make a weight lifting bot which will display the correct techniques of:

1) Dead Lift
2) Snatch
3) Back Press
4) Front Press

Which are used in weightlifting. It will show the correct arm and elbow positions while lifting a weight with precise and impeccable movements.

Components and their cost:

2 Servo motor (300rpm and 30kg-cm) - Rs. 2,000 each
2 simple motor(300 rpm and 12-kg-cm) - Rs. 1,000 each
USB 2.0 dynamic cell - Rs. 1500
IC - Rs. 700
Carbon Fibers - Rs. 500
Others - Rs. 300

Total cost would be about Rs. 8k.

Implementation:

Week 1: Purchasing of the things and coming with an idea to maneuver the project with proper design and work allotment.

Week 2: Making 1st arm i.e. Elbow and shoulder and synchronizing them.

Week 3: Making 2nd arm same as 1st arm and synchronizing them.

Week 4: Complete by the end of this week with minimal flaws.

Week 5: Giving Final Touch to the project with advice from the mentor.

Learning :

1) How different motors can be used for different requirements.
2) Handling of motors and their synchronization.
3) Weight that can be lifted by the plastic fiber along with torque that motors provide.
4) Team Work and a bit of weightlifting :D.

NOTE: We have a guy in our group from weightlifting who knows the correct techniques.