

## **THIS IS A MODEL PROBLEM STATEMENT. JUST TO GIVE YOU A FEEL FOR THE FINALS**

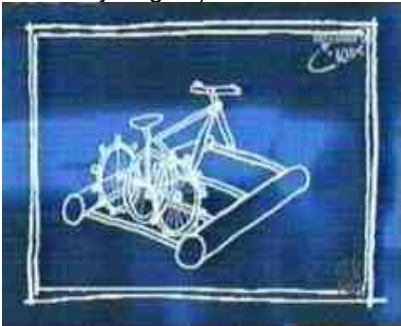
### **Problem Statement**

To make a manned vehicle that floats on water and goes through a U shaped path. Please note that one of the contestants will be seated on the vehicle.

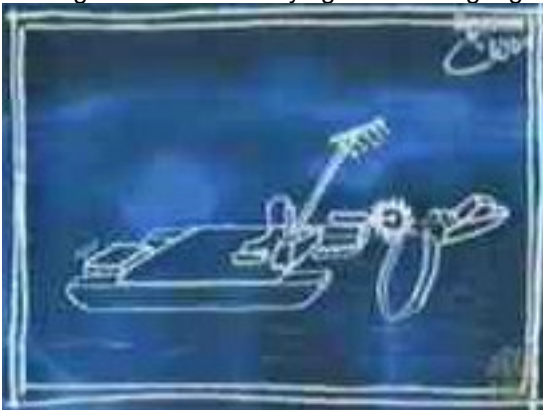
### **Sample Solutions**

The basic structure can be of two types:

- A boat like structure (for example a canoe) can be found or formed.
- Making a floatable platform using low density material (thermocole) or barrels/cans etc. , fixed beneath a flat surface.
- Some of the ways to power the boat are :
- Using a bicycle to push through the water like a pedal boat (it has to be manned but does not need any engine).



- Using an I.C. engine (like one from a moped or the diesel engine of a generator) to power it. It can thus be manned, but will have to support the weight of a man and the engine.
- Using water pumps to produce a strong horizontal jet of water through a nozzle (as in a jet engine) and hope it provides enough power to propel the boat forward.
- Making the structure very light and using big air fans to push air horizontally (as in hovercrafts).



- The generator can also be used to run the A.C. motor which in turn will propel the boat forward.

These are only some of the ways which can be implemented. Your own ideas may be better.

Please note that the above solutions were suggested keeping in mind the junk that will be in the junkyard.