



# EFFULGENCE '17

10<sup>TH</sup> 13<sup>TH</sup> OCT  
BEATING THE INVINCIBLES

A techno-management fest



## HYDROMANIA

### INTRODUCTION

Water that curbs the thirst can also be an element of massive destruction. Employ the principles of hydraulics to discern the mystical power and the unerring force of the fluids in the dynamic world. HYDROMANIA brings you the opportunity to unravel the vivid theories relating to fluids, force and pressure, and put them together to bring alive a pressure-driven robot that will crash down the resolve of your rivals.

### TASKS

Teams must build a manually controlled machine that can perform actions like cutting, grabbing, lifting and dumping. All the movements of the bot must be actuated by hydraulic force only.

### BOT SPECIFICATIONS

1. The area of the base of the bot should not exceed 30cmx30cm.
2. There are no height or weight restrictions for the bot.
3. The base is to be kept fixed at specified point on arena.
4. The bot can change dimensions during the game play that is it can elongate or compress which are not included in machine measurement
5. Arm of Bot should have extension of atleast 30 cm
6. For hydraulic motion, only syringes, wood, water, metallic frame, iron nail/pins and rubber band are allowed.
7. The movement of each and every part of the machine is to be actuated by hydraulic force only.
8. Use of electrical energy (e.g. battery) is strictly prohibited.
9. Use of motors is strictly prohibited
10. Use of spring is not allowed.

### TEAM SPECIFICATION

1. A Team can comprise of maximum 5 members.
2. Students from different educational institute can also form a

### ROUND 1- FRUIT NINJA

To cut maximum number of vegetables in a fixed time using your hydro bot.



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### RULES:

- 1) Cutter should not exceed the length of 15cm.
- 2) Bot must not harm the arena in any means, otherwise points will be deducted.
- 3) If vegetables are not cut properly then they will not be taken into account.

### SCORING:

- 1) 10 points will be awarded for perfect cut of vegetables
- 2) 5 points will be awarded for partial cut.
- 3) Judges will have the final authority to decide whether the cut is partial or perfect. Their decision is unquestionable.

### ROUND 2- SAND DIGGER

To dig maximum amount of sand in a fixed time.

### RULES:

- 1) No replacement of jaw shall be entertained.
- 2) However small modification would be allowed.

### SCORING:

Weight of sand displaced within the fixed time will be deciding factor.

### QUERY/HELP:

#### **Event Co-ordinators:-**

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