



# VIRAT

## Introduction

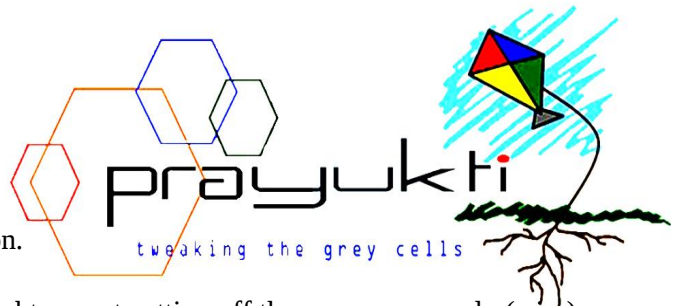
Do you have a patriotic soul? And never got a chance a chance to show your devotion towards your countrymen. Terrorism needs to be eradicated from the Arabian Sea where the lives of Indians are on the verge of death. Our warship **INS Virat** needs to attack the terrorists and evacuate the captivated Indians.

## Problem Statement

Design a wired or wireless manually controlled robot that is capable of knocking out the terrorists and is able to bring back Indians safely.

## General Rules

- The boat may be wired or wireless.
- Any unfair means opted may lead to disqualification.
- Damaging the arena will cost you the event.
- All types of damage are allowed in due course of fight except cutting off the power supply (wire).
- Competition will be played on a knockout basis and winning will depend on maximum scoring.
- A safety check shall be conducted ahead of the event and if found unfit; It may lead to disqualification.
- **The organisers reserves the right to change any or all of the rules as they deem fit. Changes will be highlighted on the website.**
- Readymade kits, LEGO kits, car bases and development boards are not permitted.
- **In all cases, the decision of the judges and co-ordinators will be full and final.**



## Team Specification

- Each team shall have a minimum of 3 members and a maximum of 5 members.
- Only three members per team shall be allowed inside the arena.



## Bot Specifications

- Size of the bot can be maximum of  $(30*30*30) = (l*b*h)$ .
- Weight of the bot can be a maximum of 5 kgs.
- The weight of the wireless bot will be counted as 0.75 times the actual length.
- Length of the wire will be maximum of 5 meters.
- The robot can be of rolling or floating type.

## Battery and Power

- Machine can be powered electrically only (that can be AC or DC).
- The power supply has to be on-board.
- 230 V AC power will be provided.
- In case of wireless bot, the battery should be placed on the bot.
- In case of wired bot, external battery can be used.
- The bot should have a type of container at the back of the bot or anywhere suitable to collect or pick up items.

## Weapon System

- The robots can have any kinds of cutters, flippers, saw hammers, lifting devices etcetera as weapons, with the following **exceptions**-:
  - ✓ Liquid Projectiles
  - ✓ Acid based weapons
  - ✓ EMP generators
  - ✓ Any kind of flammable liquid
  - ✓ Flame producing weapons
  - ✓ Explosives
  - ✓ Nets, glue or any entanglement devices.



## The Event

# PRAYUKTI 2018

ANNUAL TECHNO-MANAGEMENT EXTRAVAGANZA  
APRIL 9<sup>th</sup>-11<sup>th</sup> 2018



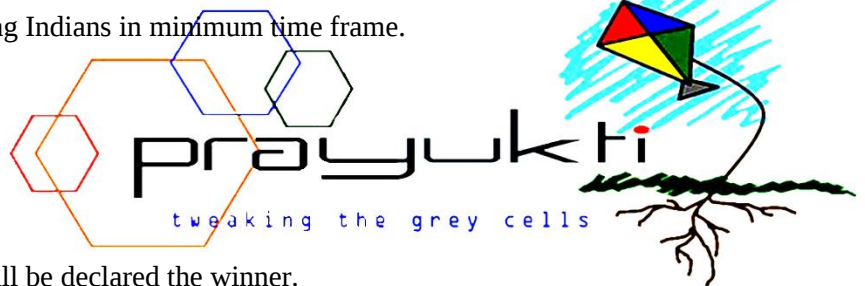
1. The event is of two rounds, the prelims and the final round.

## Prelims Round

1. This is the qualifying round.
2. The bots will enter the arena (water) and race to the finish line.
3. There will be no obstacles (hurdles) in the first round.
4. 4 bots shall enter the arena once and 2 of them will advance to the next round.
5. Minimum time to reach the finish line will lead the bot to the next round.

## Final Round

1. This is a knockout round.
2. Two bots fight against each other, for and against the terrorists respectively.
3. This round will contain numerous hurdles.
4. Points will be credited to the bots rescuing Indians in minimum time frame.
5. Two teams will compete at a time.



## Scoring

1. Minimum time to reach the finish line will be declared the winner.
2. Scoring will be decided by the judges as well as co-ordinators.