THE ROBO-KAANT

Future world of complex, atomised gadgets had its root in today's robots of
simple functionality… even basics objectives like locomotion and coordination
need advanced mechanism and elaborate technology.Having welcomed the
multitude of robots in past…. ROBOTICS once again is on this year... If you have a
strong inclination in creating robo models... This is the place where you can prove
your undefeatable dominance in robotics... CHALLENGES AWAITS YOU…

“It is impossible to win the race unless you venture to run, impossible to win the
victory unless you dare to battle.”- Richard M. DeVos

ROUND 1 :: ROBO-RACE

RULES AND REGULATIONS:

• Each team should have at the most 5 members.

• Participants from different educational institutions can form a team.

• All the participants should carry their valid identity card of their respective colleges.

• In case of a tie, the final decision will be in the hands of coordinator.

• The final rules will be declared on the spot by the coordinator.

• The wireless bot is advised to have two remote control circuits (or a dual frequency

remote control circuit) which can be switched to either frequency before the
start of the game. This is done to avoid frequency interference between the two
competing bots during the race.

• The organizers reserve the rights to change any or all of the above rules as they

deem fit. Change in rules.

• The decision of the Event Organizers will be final and binding.

• Judges have the right to disqualify any machine whose working mechanism or game

strategy is considered hazardous in any way.

BOT SPECIFICATIONS

* Bounding Box Size for Machine should be: 25 cm length X 25 cm width, no height limit.

(Bounding Box: A box which can cover machine completely from all dimension)

* The Bot may be Wired or wireless with weight not exceeding 4kgs .

* The bot will be disqualified if any part fails or falls off in the arena and is unable to
continue.

* The machine can be powered electrically only. Use of an IC engine in any form is not
allowed. On board batteries must be sealed immobilized or electrolyte types.(such as gel
cells, lithium, NiCad, NiMH, or dry cells).

* Any type of batteries can be used provided it does not exceed 12V.

* Power supply can be derived from batteries or through external source (220v/50 Hz).

Voltage at any point must be lower or equal to 12V DC during the game.

* The organizers will provide a standard 220V/50 Hz AC power supply. Any eliminator,
adaptor,etc required will have to be arranged by participants themselves.

* Sufficient wire should be brought if wired.

* Jumping and hopping is not allowed.

PROBLEM STATEMENT:

* Design and build a wired or wireless racing bot that can complete the given race arenain least possible time. The team should be meticulous enough to manage the control and
speed of the bot and to overcome different terrains. The robot that completes the track in
the minimum time is the winner.

* The endurance of the bots will be tested.

* There are different terrains and checkpoints to which the bot has to pass through.

* Be ready for surprise terrains which will be revealed on the spot.

*Arena will consist of hurdles, sand, mud, Slippery slope, rolling balls, etc.

ARENA

" arena will be launched soon "

ROUND 2 :: ROBO_RUMBLE

RULES AND REGULATIONS:

Two robots will fight at a time.

Preliminary stages will be of 3 minute each(elimination round).

• Final stage will be of 5 minutes.

• The robots once entered the dead zone may result in elimination or the loss of

points.

• If the robot will not be able to come out of dead zone with in 40 sec. the robot will

be declared as dead

• The robot looses the match if there is no mobility of the robot and the driver of the

robot surrenders.

• The robot will be provided with only 10 sec. to show the translational movement,

otherwise it will be declared as dead.

SCORING:

• Attack- +10 points.

• Destroying a weapon- +30 points

• Entring the penalty zone- negative 20 points

• The final winner however would be the robot which pushes the opponent's robot into the death zone. The points would be

considered only in case none of the robots goes into the death zone within the specified time limit.

• There are no points for the design of the robot.

OTHER GUIDELINES:

• Fire, water, chemicals and explosives are not to be used as weapons.

• Any weapon used should be within the limits specified for the robot.

• Control for the robots can be wired or wireless. In case of a wireless remote, the

team should make sure that the wire is slack and does not fall on the arena at any
point of time.

• Gearbox and/or motor assembly of a toy car, or a base of a toy car with its gearbox

and /or motor cannot be used as a machine part.

• Lego kits/parts are not allowed.

• The decision of the judges will be final and binding.

• The entries are restricted to students currently pursuing education in recognized institute.

• Students from different colleges can form a single team.

• The rules are subject to change at any time before the date of event. The students

are requested to check for updates.

• Flying of the robot is not allowed.

• Hazardous and dangerous materials are forbidden from use anywhere on the robot

where they may contact humans.

• All the participating teams will get participation certificates.

ROBOT SIZE AND WEIGHT:

•The maximum size of the robot is 25 cm X 25 cm .

• The maximum weight can be 8 kg.

• The robots should run on a 12V D.C. However, 220 V AC will be provided to the participants.

ARENA

" arena will be launched soon "