



Asian Celebration



Robotics Contests (See Descriptions/Rules Below)

Schedule

Saturday: February 17, 2007

- 10:00 Registration begins for all Robot events.
- 10:30 Hacker Workshop (Turn toys into robots)
- 12:30 Beginner Line Follower
- 1:30 Advanced Line Follower
- 2:30 Beginner Mini Sumo
- 3:30 Micro Sumo (Pending number of participants)
- 4:30 Advanced Mini Sumo
- 5:30 Awards

Sunday: February 18, 2007

- 10:00 Registration for Sunday events
- 10:30 Hacker Workshop
- 1:00 Line Follower
- 3:30 Mini Sumo
- 4:30 Advanced Mini Sumo
- 5:00 Awards

Contact LERaines@copper.net for more information

ShowBot: A kind of beauty contest for robots. Each day robots will compete on style originality and just the wow factor for best in show.

Line Follower: How well can your robot follow a black line? Beginner followers have a simple course while advanced followers must navigate loops, breaks, offsets and sharp turns.

Sumo: Robots try to push each other out of a ring much like there human counterparts. There will be beginner and advanced “Mini Sumo” and “Micro Sumo”. Possible “Nano Sumo” depending on participation.

General Rules All Contests

- 1) The contests are conducted by unpaid volunteers. They are not trained in security or law enforcement, so they cannot be responsible for damage or theft of robots. To the best of there ability your robots will remain safe but ultimately it is honesty of the participants and spectators that will prevail.

- 2) At the end of each day or event, it is the responsibility of the participant to collect their robot or robots. Robots left after the event on Saturday can still be retrieved on Sunday. There will be no special effort to return robots that remain after closing on Sunday.
- 3) Hazardous or offensive robots will not be allowed to participate. The determination of the volunteers operating the robots contests will have the final word on participation. So, if you do not want to carry a robot around with you as you enjoy the other attractions, use common sense with your entries. If your robot entry requires special handling, for example: a life size B9 or Robbie, contact an Asian Celebration representative to deliver the robot on the day before or before opening of the Asian Celebration.
- 4) Poor sportsmanship or an abusive attitude toward participants or spectators will immediately disqualify you and your robot.

ShowBot Contest

This contest is for any participant that has a robot or robot model they would like to share with others. Each day will have a best of show winner. One robot will not be allowed to win twice but a non-winner can compete twice. There are not many rules to this contest.

- 1) Each robot needs a name or title to distinguish it for voting and award.
- 2) Robots must be available one hour before closing for award ceremony.
- 3) All decisions by judges are final.

Line following

Number of Robots per Event: One

Length of Event: 3 minutes maximum

Robot Control Specifications:

Control: Autonomous

Weight: Any

Dimensions: Any

Arena Specifications:

Width: 1 meter

Length: 3 meters

Beginner Course:

Line: Black 2 cm wide on white background with no breaks, offsets, bulges or thinning. No loops and no turn less than 10cm radius.

Advanced course:

Width: 1 meter

Length: 3 meters

Line: Black 2cm wide on white background. The line can have 4cm breaks and 5cm bulges. Offsets can be up to 4cm from center. Turns radius can be as sharp as 3cm on center

Event Rules:

The object of this contest is to complete the course in the shortest period of time while accurately tracking the course line from start to finish.

- 1) Once a robot starts the course, it must remain autonomous or be disqualified
- 2) A maximum of 3 minutes is allowed to complete the course. If a robot has not completed the course in the time allowed, it will not be disqualified but it will no longer be entitled to acquire points after the time limit has expired.
- 3) A robot that wanders off the arena platform will be disqualified
- 4) A robot is considered to have reached a Waypoint when its wheels have crossed the boundary line defining the Waypoint area while moving in the direction of the Waypoint Arrow (both conditions must be met).

Scoring:

Accomplishment	Pts
1st shortest time to complete course	15
2nd shortest time to complete course	10
3rd shortest time to complete course	05
Reached Waypoint A	10
Reached Waypoint B	10
Reached Waypoint C	10
Reached Waypoint D	10
Reached Finish	10
Completes course without losing line	20
Completes course after regaining lost line	10
Stops at Finish after completing the Course	05

Sumo Robots

Number of Robots per Event: Two

Length of Event: 3 minutes maximum

Robot Control Specifications:

Control: Autonomous

Type	Weight	Length	Width	Height
Mini	500gm	10cm	10cm	any
Micro	250gm	5cm	5cm	5cm
Nano	125gm	2.5cm	2.5cm	2.5cm

Arena (Dohyo) Specifications:

Type	Diameter	Out of Bounds Line
Mini	77cm	25mm
Micro	38.5cm	12.5mm
Nano	19.25cm	6.25mm

Match Definition:

A match is between two robots. The robots are constructed and programmed by an individual or a team. However, only one person is allowed at ringside when the match begins. At the beginning of the match, the human contestants are to bow to each other and place the robots

on the Dohyo (ring) according to the instructions of the referee. Bad conduct and disrespect by either contestant can have them disqualified and the match given to the opponent. When the referee says “Start,” the contestants power on the robots, and then move two meters away from the Dohyo. Five seconds later, the robots start to move.

A false start (moving before five seconds or not moving at all) will cause a restart. Only one restart per match is allowed. A second false start will result in a forfeit of the match and a Yuko (point) given to the opponent.

The match continues for three minutes or until a Yuko is scored. If at the end of three minutes both robots are still in the ring, the referee will award the Yuko to the best performing robot. If the referee cannot determine a decisive winner he can call for a rematch. The contest continues until one robot wins two out of three matches.

At the end of each match, the human contestants bow to each other. Here again bad conduct or disrespect can forfeit the match even if a Yuko has already been awarded.

Placing the robots:

At the beginning of a match the robots are placed half way behind the brown (Shikiri) lines and edge of Dohyo. The referee throws two dissimilar coins to determine the direction of the robot.

Coin 1	Coin2	Direction
Head	Head	To Center
Head	Tail	Left
Tail	Head	Right
Tail	Tail	To Outside

Determining Yuko:

When a robot touches outside of the Dohyo a Yuko is awarded. When two robots touch outside of the Dohyo, the last robot to touch is awarded the Yuko. If it cannot be determined, a rematch is requested. If a robot is rendered motionless or does not start it is considered as loosing. If at the end of three minutes no robot is the clear winner, the referee can award a Yuko or call for a rematch. The winner is the first to be awarded two Yuko.