Humanoid and Walker Challenge Rules

There are three such events: Freestyle, Bi-Ped Race, and Walker Challenge

Freestyle (Demonstration)

Number of Robots per Event: One
Length of Event: 2 minutes
Robot Weight Range: Open
Robot Dimensions: 20cm to 100cm tall
Robot Control Specifications: Autonomous

Judging Criteria:
Each judge will award up to ten points for each of the below criteria. All points will be added and combined, and a score will be given to each contestant. Points will be awarded in the following three areas:

Originality - How original was the concept? Was this work clearly well thought out? Did it make you laugh or cry?

Agility - Was the Robot moving as flexibly as a gymnast or athlete? How difficult would it be for a human to do similar move?

Variety of Moves - Did the robot go through a series of motions which were ever-changing, or were they all similar in movement?

Bi-Ped Race

Number of Robots per Event: 2-4
Length of Event: 3 minutes max
Robot Weight Range: Open
Robot Dimensions: Two classes: under 60cm (24");
60cm-120cm (24-48");
Arena Specifications: 3 meters (9.8') long, 1.5 meters (59.1”) wide
Robot Control Specifications: Autonomous or R/C

Event Rules:
Robots must have only two legs for this competition, and must have a reciprocal linear mechanism for locomotion. If this mechanism is driven by a rotary motor, reversal of the direction of the mechanism (as required for up/down or forward/back motion) must require reversal of the motor.

In addition, the actuator in contact with the floor must move backwards and forwards with respect to the center of gravity of the robot. Robots race from a starting line to a finish line. The number of robots per race is determined by total number of entrants, and the fastest time wins.

Walker Challenge

Number of Robots per Event: 2-4
Length of Event: 3 minutes max
Robot Weight Range: Open
Robot Dimensions: Max. 1m long by 1m wide (3.28 ft x 3.28 ft), any height;
Arena Specifications: 3 meters (9.8') long, 1.5 meters (59.1”) wide
Robot Control Specifications: Autonomous or R/C

The term 'Walker' is defined for this competition as any robot that uses a reciprocal linear mechanism for locomotion. If this mechanism is driven by a rotary motor, reversal of the direction of the mechanism (as required for up/down or forward/back motion) must require reversal of the motor. In addition, the actuator in contact with the floor must move backwards and forwards with respect to center of gravity of the robot.

Once activated, the robot has three minutes to traverse the obstacle course. The robot with the shortest time, measured from when the robot’s entire body is out of the arena, wins. If no robot completes the course, the robot covering the most distance is deemed the winner.