## World Skills Singapore, Jan 2011

## **Golf Task**

## **FAQs (Frequently Asked Questions)**

1 Can drill extra holes on Robotino's base? Ans: Yes.

- 2 Regarding the "Golf Club"
- a) Dimensions are with a tolerance of + 5mm and Golf Club must be mounted in front of the robot.
  - b) The swing action must be about the pivot point.
- c) Only the Swing Face can come into contact with the ball. Otherwise, a penalty of two strokes will be added to the score if any part of the robot hits the ball. If the ball bounces off the wall/obstacles and hits the robot when it is stationary, NO penalty will be imposed. Otherwise a similar penalty of two strokes will be added to the score.
- 3 Can the "Golf Club" swing continuously? Ans: Yes. But the penalty in para 2(c) applies if "Golf Club" or any part of the robot contacts the ball while the robot is in motion.
- 4 Can the robot be fitted with additional light to search for the ball? Can the camera be mounted on any other position with additional mechanism to enable pan-tilt-zoom operation?

Ans: Yes. Any electrical supply for such additional mountings on the robot must be obtained from the Robotino battery. No additional battery is allowed.

- 5 Can additional sensors be installed? Can gyroscope be used? Ans: No to both queries. Only two optical sensors, one inductive sensor, one vision system and 9 distance sensors provided by the Robotino set can be used.
- 6. If the auxiliary attachment fails during the run, will additional time be given to fix the problem?

Ans: No. However, teams can repair or change auxiliary attachments including the "Golf Club" before each new run. All spares and tools must be brought to the Arena during the performance evaluation.

## 7. All other queries.

Ans: a) If the ball comes to a rest in the OB area, it will be placed on a Relief line nearest to where it rests. The relief line is 400 mm from the arena wall and obstacles. If this location is occupied by the robot,

the ball will be placed at about 200mm from the robot, along the Relief line.

- b) All attachments can only be mounted during the development time of the task.
- c) The arena floor will be laminated. There will be two arenas for the competition. While the organising team tries its best to make the two arenas similar, they cannot be possibly identical.
- d) Robotino view version will be the same as those made available at the QR.
- e) Laptop will be provided and will be installed with Windows 7 and Microsoft.
- f) Tennis balls handed to competitors have been spray painted green. A new green ball will be used during competition. Participants will not use the ball that they have been practicing with.
- g) No hole-in-one is allowed. This is to prevent competitors from hard-coding the robot to scoop the ball at the start position, over the obstacles towards the "hole", which is a red bowl sensitive to any contact.