

# Simulated Car Racing

GECCO-2009

## Contest I: Learning to drive

We are pleased to announce the official start of the Simulated Car Racing competition of GECCO-2009 with the publication of the competition rules and regulations for the first contest, titled Learning to Drive, and the availability of the competition software.

### The Goal

The goal of this contest is the design of a controller for a racing car that will compete on a set of unknown tracks first alone (against the clock) and then against other drivers. The controllers perceive the racing environment through a number of sensors that describe the relevant features of the car surroundings (e.g., the track limits, the position of near-by obstacles), of the car state (the fuel level, the engine RPMs, the current gear, etc.), and the current game state (lap time, number of lap, etc.). The controller can perform the typical driving actions (increasing the gear, accelerate, break, steering the wheel left or right, etc.)

### Rules and Regulations

The contest involves three Gran Prix on three (unknown) tracks. Each Gran Prix is organized in two stages: the warm-up and the actual race. In the warm-up, each driver will race alone for 10000 game tics, approximately 3 minutes and 20 seconds of actual game time. The eight drivers that will cover the more distance will qualify for the next stage, the actual race.

In the second stage, the eight drivers will race together. Each race consists of ten trials. The goal of each trial is to complete five laps from a randomly generated starting grid. At the end of each trial, the drivers will be scored using the F1 system: 10 points to the first controller that completed the three laps, 8 points to the second one, 6 to the third one, 5 to the fourth, 4 to the fifth one, 3 to the sixth, 2 to the seventh, and 1 to the eighth. The driver performing the fastest lap in the race will get two additional points. The driver completing the race with the smallest amount of damage will receive two extra points. The final score for each driver in the Grand Prix will be computed as the median of the 10 scores collected during the trials.



### Important Dates

Submission deadline: July 1st 2009

Conference: July 8th-12th 2009

### Competition Software

The competition software, including the servers for Linux & Windows, the C++ and Java clients, can be downloaded from the competition webpage:

[http://cig.dei.polimi.it/?page\\_id=79](http://cig.dei.polimi.it/?page_id=79)

For inquiries send an email to [championship2009@ieee-cig.org](mailto:championship2009@ieee-cig.org) or visit the Car Racing Google Group at

<http://groups.google.com/group/racingcompetition>

### Organizers

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