



BCI Race

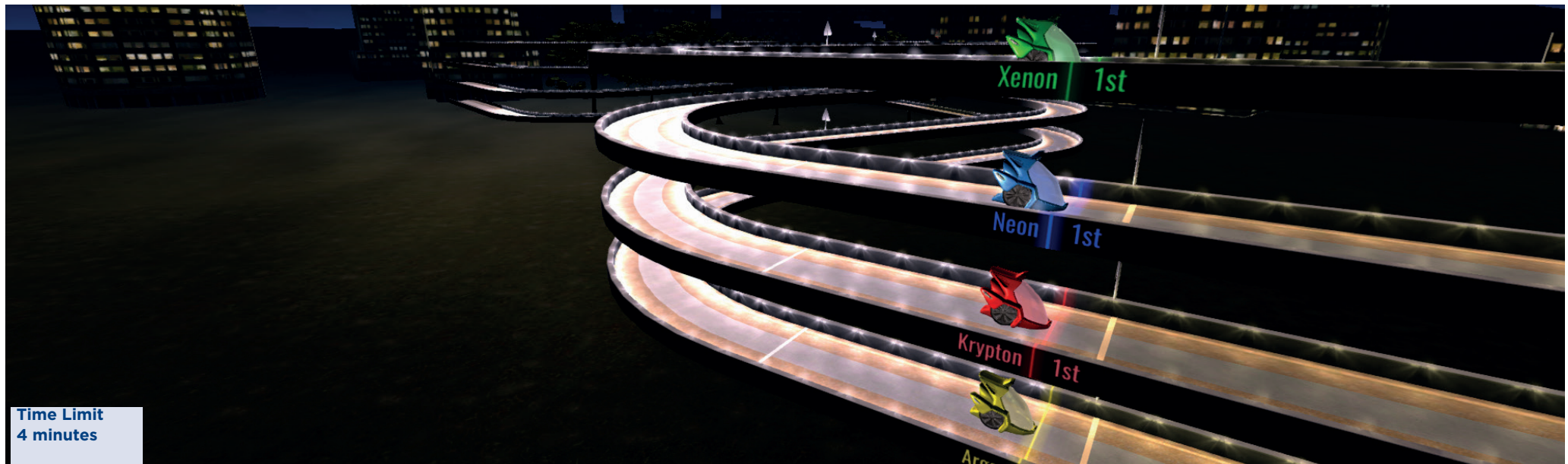


BRAIN-COMPUTER INTERFACE RACE

In the BCI race, pilots with quadriplegia use brain-computer interfaces (BCI) to control avatars in a computer game. The aim of this technology is to control devices such as computers or wheelchairs for people with limited ability to move.

CHALLENGES FOR 2020

The new BCI game "BrainDriver" picks up the topic of mobility and it is about navigating vehicles through a course. Furthermore there are four control commands: The commands "right" and "left" can be anticipated, while "switching on the headlights" is about reacting to a changing environment. In addition, there is the challenge of not sending a signal in certain sections of the game.



Time Limit
4 minutes

Scoring

1. The first pilot to reach the finish line who has completed all sections wins the race (16 sections, 500 virtual meters).
2. If none of the avatars have reached the finish within the time limit, the one that has travelled the farthest is the race winner.

Main Competition Rules

BCIs that use eye movements to navigate in the game are not allowed, even though the desired control signals can easily be generated with this method. The referee may issue warnings in the event of repeated infringements of the rules. After three warnings, the game is over and the distance achieved up to that point is taken into account.