Concept: Speed Racer

Game Description

A simple racing game in which the user competes against their previous performances. The user primarily controls the speed of the car in order to successfully navigate around a predetermined racetrack. Going too fast at a corner results in the car spinning off the track and time penalty.

If multiple users use the game then the best performance is used to provide the ghost performance. The ghost performance acts as a npc (none player character) for the user to race against.

Description of User Movement

User raises/rotates and lowers hand from the wrist changing the pitch of the hand. This motion controls the speed of a car on a track. Raising the hand increases the speed, lowering decreases. For more able bodied users the arm can be raised or lowered to produce the same effect. The same method of hand movement/rotation can also be used in the Y axis to produce yaw motion that could control direction of the vehicle. A user is forced to vary speed at corners or they will leave the track resulting in a time penalty.

Levels

There is a singular level consisting of a race track environment in which the user competes against a ghosting of their previous performance. Differentiations of level are primarily defined via skill variance and of number of circuits of the track needed for race completion.

Score

Performance is primarily logged as the time taken for the user to complete the race. In game feedback is provided to the user in the form of a ghosting of their previous performance.

Data

The concept provides large volumes of available data, some of them are:

- Distance moved in the XY planes.
- Number of accelerations of the car.
- Number of times car leaves track.

Feedback

The User has access to their score for each level and an overall score which can be used to derive an overall grade (Gold, Silver, Bronze).

Skill

Skill can be broken down into 3 categories of control method and obstacle provision:

1. Fixed course speed controlled via user movement (Pitch).
2. User controlled course (Yaw) and speed (Pitch).
3. User controlled course (Yaw) and speed (Pitch) and obstacle avoidance.

Expansion

The concept can be expanded to include additional tracks and npc opponents dependent upon implementation resource.