VR Biking:
Let’s make fitness happier

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Abstract
In gym, people often listen to music or watch TV when they are using the bike and jogging machine in the fitness room, but that is kind of tedious. Based on this, we try to redefine the happiness of fitness by implementing a VR game so that people who are fitting can feel like playing in another world.

Game Design
- First person running game
- Auto-extended path & infinite sea
- Character can move left and right to collect bonus point
- Character can jump or move L/R to avoid collision

Hardware Component
- Oculus Rift
- Oculus Touch
- Wahoo Blue Speed Sensor
- Bike
- Macbook (server side and Unity)

System Design

- web server
- read speed data
- write speed
- Unity
- Control
- render
- sensor on the bike
- Oculus touch
- Oculus Rift

User Interface

Future Direction
- Making this game a treadmill version by adding an IP Camera to the system and detect falling risk
- Adding some dynamic monsters and implementing interactions to make the game funner
- Implementing more sceneries such as cartoon world, marathon, etc.
- We always say if this can connect to Google Map Street View, the function and happiness of it will be maximized because users can run around the world

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