

Kinect Explore

Great Sword

Work Overview

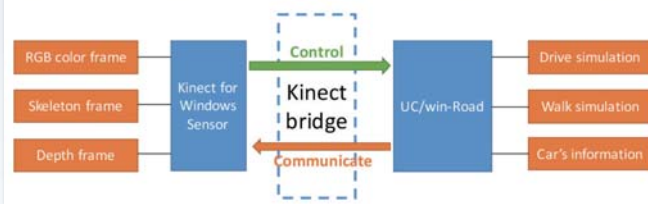
Kinect Explore combines Kinect smart drive and Kinect free walk together. Kinect smart drive provide air drive function and automatic drive assistant system. You can interact with the virtual steering wheel and pedal to drive the car. Kinect free walk provide walk and free view function. You can explore the city by walking, and turn your head to every direction where you are interested in.



System Requirement

Gesture recognition is based on Kinect for Windows 1.0.
 Users can perform driving and walking via only motion controls in UC-win/Road.

System diagram



Features

1. Skeleton and depth image used to detect the action of the user.
2. Color image used to display the player. The background from Kinect sensor is removed.
3. Draw the steering wheel, brake and accelerator pedals more stable.
4. Select mode by hand gesture, without any mouse action.



5. Detect the change of shoulder and head to control the view position and direction.



6. Explore the city with Kinect.

Future Work

1. More stable and reliable head pose estimate.
2. Multi players interact with the software.
3. More simulation explore mode.