

A07 – Around the world

The application allows the user to turn around a starship look at it from any angle.

It is contained in `index.html`, and the procedure for computing and update the world matrix for the starship is contained in file `Rotation.js`. The rotation, should be always relative to the screen: the horizontal movement should always be horizontal, the vertical rotation should always be vertical, and the roll should always perform a circle with respect to the view.

The procedure receives as input three values `rvx`, `rvy`, `rvz`, that are either positive, negative or zero depending on the rotation direction being requested by the user. You will also need to add one or more global variables to remember the previous ship angle, so to update it according to the values contained in `rvx`, `rvy`, `rvz`.

In order to perform correct rotations with respect to the view, you need to use quaternions. You can write quaternion operations yourself, or use a library available on the web. For your convenience, the page already includes library `quaternion.js`:

<https://www.npmjs.com/package/quaternion>

Please refer to the lesson recording to see which rotation effect is actually required by this assignment.