CS7GV03 - Assignment 2

Transmitance Effects

22 January 2018
Assessment Details

• This Lab is worth 15% of the mark for the module
• You must demo the lab next week Thursday, 1\textsuperscript{st} February 2018
• Submit:
  • A short (less than 5 minutes) video of your demo
  • Source code and shader code for your program (Source code only do not include executable)
  • A short description of your scene and mention any external libraries, 3\textsuperscript{rd} party source code you may have used (max 1 paragraph)
• You should work on your own. You may use and refer to external code but should reference it (see above) and in code comments
• You must use GLSL
Goals

• Implement a shader for an object that is both transmissive and reflective
  • Transmission may entail any of the effects discussed in the last lecture but most likely refraction
  • You must include a Fresnel component in your shader
  • You should also include the chromatic dispersion effect
  • You should also include an environment texture, cube map or sphere map in your scene which affects the appearance of your object

• SECONDARY OBJECTIVES
  • Implement a scene with some rotating objects using the above shaders
    • Try to make the scene it as photorealistic as possible
    • Try to add some variation in models, scene, shader to make your demo slightly unique
# Assignment 2

<table>
<thead>
<tr>
<th>Total</th>
<th>15%</th>
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<tbody>
<tr>
<td>Reflection</td>
<td>20%</td>
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<tr>
<td>Refraction</td>
<td>20%</td>
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<tr>
<td>Fresnel (for ratio of reflectance to transmittance)</td>
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<tr>
<td>Chromatic Dispersion</td>
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<tr>
<td>Environment texture or cube map</td>
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Example: https://www.youtube.com/watch?v=d0ZBMl4hhpw