

## MEMO – Glassy Objects

### Problem / Task

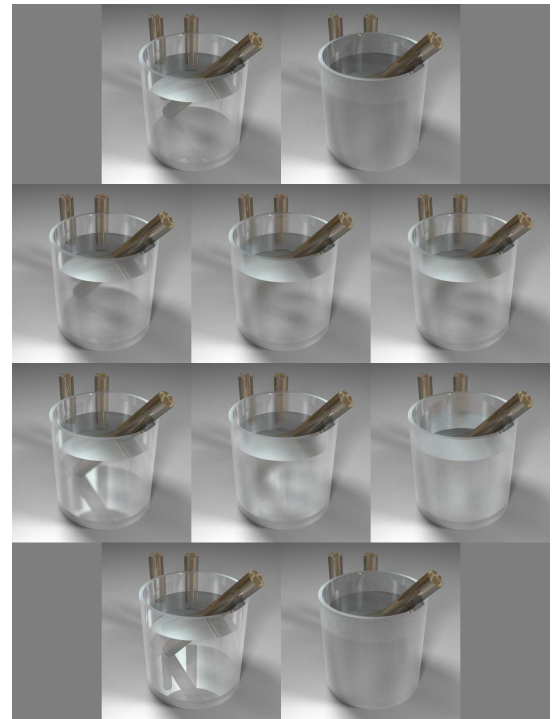
Create a convincing glass model.

### Solution

1. Create or place object. Set Ambient colour white or give it a colour tint. Set Transparent colour to same colour. With Ambient in Sky Lab fully white, give object about 10% Ambience. Set it to fully transparent and Refraction to glass at 153. Set Specular Halo colour to a grey shade between 100 and 200.
2. Light scene as appropriate with either white or coloured radials, three may be good.
3. Use an HDRI as backdrop only to create highlights, a specular convolved one may suffice.
4. Set Render Options to Premium, Blurry Transmissions, Soft Shadows and Rays per Pixel as appropriate. Also set Maximum Ray Depth to 4 or 5 (increases render time by around 50% per additional ray depth) and Total Internal Reflections to 2.

### Adjustments

- Adjust the Specular Halo grey colour for object by increasing or decreasing the brightness of the grey. The brighter the grey shade, the more blurred the transmissions.
- A higher Maximum Ray Depth increases brightness and accuracy of glassy object.
- Increase Rays per Pixel if 64 results in still too much noise.



Left image with Amadillo from *Stanford 3D Scanning Repository* rendered with Max Ray Depth 4, Specular Halo colour 191 and 256 rpp.

Mosaic at right: upper half Max Ray Depth 4, lower half 5. Top and bottom row left Specular Halo colour black (0) and at right white (255). Middle rows left 96, centre 144, right 192.

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