

# A3—Texture Mapping

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*Due: Monday October 5 at noon*

1. Expand your rendering engine with the following features:
  - a. Model space rasterization parameter interpolation
  - b. Texture mapping with tiling and with bilinear interpolation lookup
2. Create a texture mapped scene with at least 5 texture quads
  - a. At least one texture should be acquired by you with a camera
  - b. At least one texture should be tiled
  - c. At least one texture should be downloaded from the web
  - d. At least one texture should capture complex lighting
  - e. At least one texture should capture a reflection
3. Render a 10s 30Hz 720p video sequence illustrating your scene.
4. **Extra credit 3%: Lighting**
  - a. **Ambient, diffuse, and specular per pixel lighting**
5. **Extra credit 3%: Mipmapping**
  - a. **Texture LoD should be adapted to screen**
6. **Extra credit 3%: Sprites**
  - a. **Support textures with transparent texels**
7. Turn in via blackboard one zip archive that contains
  - a. Source code
  - b. Executable
  - c. Video file

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