

CSE190: Computer Graphics - Rendering Algorithms  
Programming Assignment 3  
**Due Thursday, June 12 at 11:59pm**

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This assignment involves rendering a realistic image of an object or scene of your own choosing. The scene or object should be challenging enough to require you to design and implement an advanced rendering algorithm; for example based on the techniques from the last 3 weeks in class, such as:

- Monte Carlo ray tracing
- Path tracing
- Soft shadows
- Radiosity
- Photon mapping

### **Project proposal**

Send a project proposal consisting of an image, a short text motivating why this is an interesting object to render, and possibly a few pointers to papers describing the techniques that you plan to implement. **Proposal deadline is Thursday, May 29 - as email to [henrik@cs.ucsd.edu](mailto:henrik@cs.ucsd.edu).**

### **Grading**

This assignment will account for 1/2 of the final grade or more in case your project is truly outstanding. The evaluation includes novelty, technical skill, and the quality of the rendered images produced as part of the assignment. Note that several thousand lines of code by itself does not make a good project.

If more people work on the same project please identify what part of the code that each person implemented. This will be used for the purpose of individual grading.

**For this assignment you should make a 2-3 page summary description of the project in addition to the original proposal. Submit the text and the source files (all .cpp, .h and makefile - not object files) as a packed .tar.gz file to [henrik@cs.ucsd.edu](mailto:henrik@cs.ucsd.edu) before the deadline.**

## **Rendering competition**

On June 12 from 3pm-6pm there will be a rendering competition where the images will be evaluated by an independent group of judges purely based on what images and techniques they like. To provide additional incentive the following prizes are offered to the best images:

- Grand price: A prepaid trip to SIGGRAPH
- First price: An expensive book
- Honorable mention: A book related to rendering