

# CS4204 Computer Graphics Spring 2012

## Homework 5 – Improved Rendering for 3D Robot (Programming)

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### Due Dates

Homework 5 is due on Tuesday, 03/27/2012 11:59pm.

### Introduction

The goal of this homework is to improve the rendering quality and performance of your 3D robot.

### Features of the program

Your program must contain all of the following features: (64 points)

- Please use OpenGL lighting for the rendering with at least two light sources with different light parameters (position, and color for diffuse, specular and ambient components). (15 points)
- Please specify the rendering materials for your robot. (15 points)
- Please use texture mapping for your robot. (30 points)
- Please render your robot using Vertex Array (with vertex pointer, normal pointer and texture coordinate pointer.) (40 points)

Please try to design a nice looking robot with the right materials and textures.

### What to Submit

Put your solution in one or more C++ source files. The main file (which includes function main {}) should be named `homework5.cpp`. Upload all source files in a zip file onto the dropbox in the class scholar site. Please also include a description file, called "descriptions.txt" that describes how to use your program.