CMSC427 Fall 2020
Lab 3 supplement– Ray tracing exercises II

Due by midnight Thursday, Nov. 19th

Objectives:

- Work with the ray-cylinder equations

Requirements:

This exercise supplements Lab 3 by asking you to document the equations for ray-cylinder intersection.

We have done much of the computation in lecture, and there will be a video posted on this material. You are really summarizing and completing the work.

Give a complete derivation of ray-cylinder intersection, starting from the definition of a cylinder as two 3D *e0* and *e1* points to define the axis of the cylinder, and the radius *r*. Input should also be a ray p(t)=p0+tv defined by a point and a vector.

Should be about one page.

Submission

On Elms submit a PDF of your work.