

ECE160 Assignment 1, Spring 2011

Due: In class, 3:30p.m. Tuesday April 12

Color inkjet printers use the CMY model. To make direct printing easier, it is possible to purchase CMY cameras.

- a) Explain why color printers use CMY while CRT displays use RGB.
Which strategy does a LCD display use?
- b) Draw spectral curves depicting the spectral sensitivity of a CMY camera.
- c) Plot that sensitivity in three dimensions.
- d) Determine a transformation to convert CMY to RGB.
- e) Discuss whether the colors resulting from CMY to RGB conversion are as good as the colors of a direct RGB camera or of the human eye.
- f) Compare the colors achieved by converting a CMY camera to RGB and then back to CMY, with the colors achieved by converting a RGB camera to CMY for printing.