PRISM Laboratory

- The Print Research and Imaging Systems Modeling lab will serve as a conduit between industry and academia, working to evaluate and anticipate the print systems research needs of printer and printing product companies, and directing relevant projects to researchers and students in the areas of Printers & Displays, Color Science, Vision Science, Systems Engineering, and Printing.
- The lab will be funded according to a consortium model similar to the PIC and LASS.
- The focus on multi-disciplinary projects that will involve developing models of printing systems that:
  - draw from a variety of modeling and experimental techniques that relate fundamental Imaging Science Parameters to System Parameters of interest to end users and business decision-makers.
  - can be used by the developers of these systems to make product architecture and business decisions.
PRISM Laboratory: Team Members

- **Jon Arney (Center for Imaging Science)**
  - Physical & Optical Measurement
  - Chemistry & Polymer Physics
- **Marcos Esterman (Industrial & Systems Eng.)**
  - Systems Engineering & Modeling
  - Robust Design Methods
  - Product & Process Development
- **Juan Cockburn (Computer Eng.)**
  - Control Systems and Modeling
  - Robust and Nonlinear Control Design
- **Susan Farnand (Center for Imaging Science)**
  - Psychophysical experimental methods
  - Color and Vision Science
  - Product & Process Development
PRISM Laboratory: Initiatives

- Conducting research that will provide enriching, real world educational experiences for students
  - Toner Optics: Investigation of the interaction between the fusing process and material properties of toners as well as meaningful measurement of gloss and gloss variation. Two graduate (one MS and one PhD) and two to four undergraduate Imaging Science students, three to four engineering students, and a summer intern are currently engaged in this research (Funded through a grant from HP)
  - Image Quality: Analysis of the image quality differences between digital printing technologies and off set lithography. Working to engage a printing graduate student in this research. (Funded through the PIC with possible additional funding to come from HP, Kodak, and Xerox)

- Print Systems Imaging Science track

- Collaboration with the Multidisciplinary Design Program within the school of engineering
  - Currently, a senior design team comprised of seven engineering students is developing a fuser test bed targeted at the toner optics research effort

- Collaboration with the Print Industry Center, the Printer Applications Laboratory, and the School of Print Media