Image Compression and Packet Video
October 5, 2009
Homework #3
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1. **Reminder, Project proposals are due on October 19, 2009**
2. **Read Chapter 5**
3. **Problems: (Due October 26, 2009)**

   1.0 5.1
   2.0 5.2
   3.0 5.3 (note correction)
   4.0 MATLAB Program: Develop a GUI program that will experiment with the motion models presented in section 5.5.2 and 5.5.3. Use slider bars to vary the parameters. The program should load an image (use a button or menu to select the image (use the homework #2 image if you are unable to find a representative image). The program should demonstrate:
      - **Camera Translation with in the Image Plane**
      - **Camera Pan and Tilt**
      - **Camera Zoom**
      - **Camera Roll**
      - **Four-Parameter Model**
      - **Projective Mapping**
      - **Affine Mapping**

Correction to Problems:

5.3: Show that the projected 2-D motion of a 3-D object undergoing rigid motion can be described by Eq.(5.5.13)