Team Members: Eric Johnson, Randy Hamburger
Week 1 Report – January 16, 2007

Goal:
Select a realistic Team Project pertaining to the 2007 DARPA Urban Grand Challenge identified on the class website http://www.cs.utah.edu/classes/cs5320/project1.html

  + Surfaces (roads, buildings, etc.)
  + 3D information (locations, volumes, etc.)
  + Obstacle information (size, range, location, etc.)
  + Mapping information (location in GPS coordinates, landmark detection, etc.)
  + Vehicle State information (speed, orientation, etc.).

Possible Topics of Interest:
  • Lane/Road Identification
  • Obstacle/Vehicle Recognition
  • Vehicle State Information

Resources/Information
  http://www.designnews.com/index.asp?layout=article&articleid=CA6402785
  http://robots.stanford.edu/papers.html
  http://robots.stanford.edu/talks/stanley/
  http://www.ri.cmu.edu/pubs/pub_3953.html
  http://www.frc.ri.cmu.edu/~alonzo/projects/ranger/ranger.html
  http://www.ri.cmu.edu/centers/frc/pubs.html
  http://grandchallenge.mit.edu/technology.html

Issues:
Schedule project discussion with Dr. Tom Henderson to identify/narrow Computer Vision project scope.

Set up project web page.

Identify project inputs and outputs.

Project will make use of existing libraries and software developed for Computer Vision.

Determine if the project would require single camera or stereovision. Stereovision will add synchronization issue and complexity to the project.

Accomplishments:
Eric:
  1. Researched basic rules and goals of the DARPA Urban Grand Challenge.
2. Attempted to identify issues that could be addressed with computer vision techniques.
3. Researched Vision Related Techniques used by teams in prior competitions.
4. Met with R. Hamburger on 1/11 to discuss project
5. Met with R. Hamburger on 1/16 to update project and produce initial project report.

**Randy:**
1. Met with E. Johnson on 1/11 to discuss project
2. Met with E. Johnson on 1/16 to update project and produce initial project report.
3. Researched web information on 2005 DARPA Challenge participants.
4. Set up Project Web Site
5. Prepared project summary.

**To Do’s:**
1. Meet with Professor Henderson – 1/18
2. Develop Project Schedule once project is better defined. – 1/22
3. Develop Draft Project Plan. – 1/29
4. Identify Available resource. – 1/18
5. Establish Specific Goals. – 1/18
6. Determine Project Requirement (e.g. bibliography) – 1/18
7. Identify Additional Project Resources – 1/22