Project Team

Since the idea report Hector Paz (pinestrip@email.tamu.edu) joined our project development team as an electrical engineer and software user acceptance tester.
Communication within the team was vivid and working as a team resulted in excellent project progress.

Requirement verification

1. Wireless communication between MISL and Android application

A wireless communication can be successfully established and data is being exchanged.

2. Communication configuration guidance

Work in progress: A placeholder popup is already shown up.

3. Controlling the ASEP robot

Remote operation of ASEP is already possible and Hector's tests showed no flaws so far. In first tests, the robot could be controlled even with a distance of 100 yards. According to Hector, the virtual joystick controls were good to use.

4. Display of gyroscope status information

The App is receiving and displaying plausible gyro data as plain text. The next step is to design a more attractive user interface to display this status information.

5. Display of the 3D ASEP model

Work in progress: Using the min3d rendering engine, we could load and render the 3D model of the robot so far.

6. Display of location information

GPS Latitude / Longitude is being displayed within plausible range of Texas A&M campus as plain text. Also a simple Google Map fragment was implemented to show the track of the robot, but we will replace this fragment with a different implementation that displays the relative position of the robot, like in the Windows GUI application. This decision is caused by the fact that Google Maps requires a connection to the internet, which is not possible after connecting to ASEP.

7. Samsung Galaxy Tab 10.1 and Android 4.0.4 as target platform

The App runs with debugging data on the Galaxy Tab. But unfortunately it cannot be completely tested with ASEP until development has finished and the Tab is shipped back to Texas.

8. Display of the camera's video stream

The current camera mounted on ASEP isn't usable for Android devices. We are currently looking into using alternative cameras, such as another Android device

Project plan

All MUST requirements have been realized so far. Nevertheless, they still need some refinement in sense of optimization, calibration and user friendly interface. Overall, we are quite sure that we will successfully finish the project until 16th of July, except the full featured video stream.