Research Activity Plan in Telerobotics
For Erasmus, Placement and Thesis Students in Spring 2010

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Amir & Appi (Catania, 1-Feb , 25 April, Erasmus 3-months)

Extend Augmented Reality (AR) Based Telerobotics:

- Pilot Test Robot AR Interface version 1 (Davide&Marco) [Task 1]
- Integrate AR with other sensors (Sonar, Bumpers, Odometer) [Task 2]
- Integrate AR with stereo viewing (Left-hand view correlation) [Task 3]
- Integrate Robot Commands (drive, steer, require sensor reading) [Task 4]
- Experiment with Stereo Anaglyph and Helmet (HMD) [Task 5]

Marco Macaluso (Catania, Jan – April, Thesis)

New Design for Software for Robot Server

- Efficient sensor acquisition and processing [Task 7]
- Efficient robot commands manager [Task 8]
- Server-side support for Communication manager [Task 9]

Alessandro Caniglia (Londra, Mar-Ago, Erasmus 6-months)

Innovative Interface for Robot Commands & Extend AR

- Extend mobile robot teleguide to integrate tele-manipulation [Task 10]
- Follow-up Tasks 1-5 (to be defined) [Tasks 1-5 step 2a]
- Final Test (Evaluation Study) AR-Stereo Interface [Task 6]

Loris Fichera & Daniele Ferro (Londra, Apr-July, Placement 3-months)

Teleoperation of Mobile Platform and Manipulator

- New command paradigms based on natural gestures [Task 11]
- Follow-up Tasks 1-5 (to be defined) [Tasks 1-5 step 2b]
- Final Test (Evaluation Study) AR-Stereo Interface [Task 6]

Luca Favatella (Londra, Apr-July, Placement 3-months)

New Design for Robot Telecommunication

- Robot-User telecommunication manager.
  Manage requests for events, priorities, contraints, exceptions. [Task 12]