Project Description
Progress Report
Project Links

CSC714 Real-Time Computer Systems

Group 4 Project Progress

Remote Controller for Lego Mindstorm RCX

Group Member

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Solved Issues:

- **Haihui&Xuejun: Downloaded and Installed LNPD under Linux 2.4.18**
  We downloaded and compiled LNPD code successfully. Though initially we had some difficulties to run the LNPD due to the limitation of access priviledges because LNPD will try to change some UART settings.
- **Haihui: Found and fixed a bug in LNPD:**
  It seems that LNPD can not configure 16550A UART chip correctly. In the original code, it recommends executing "setserial /dev/ttyS0 uart 16450" on the machine with 16550A UART chip. So later when LNPD initializes the TTY connection with RCX, it will treat 16550A chip as 16450 chip. It does NOT work with machines in the OS lab which have 16550A UART chips inside. It seems that we can skip this step in the LNPD code.
- **Haihui: changed project webpages with frames.**
  Now the project webpage seems more organized.

- **Haihui&Xuejun: Discussed the communication packet protocol**
  We discussed the control protocol between RCX and PC.

Next steps:

- **Haihui: Implement a Java GUI Controller program in the PC end**
  This controller program accepts the command from keyboard and send command via TCP socket to LNPD which will transmit it via IR tower to RCX. This controller program will also get the feedback from RCX via TCP socket overlaid by LNPD.
- **Xuejun: Reactor in RCX end running legOS**
  The reactor will receive and execute control commands from the IR port and also reports situations back to controller program.
- **Haihui Huang & Xuejun Sun:Further feasibility study about WebCam project**
  We will look into the WebCam project when we get the remote control project done.