

Project Number AR1802

RC5 Compliant PC Remote

Write-Up

While resting in the couch who hasn't wished to change the song played in WINAMP or mute your system during a phone call when music is on. Inspired from daily needs, this project homes on to relinquish control over any software application through a RC5 compliant remote. A quite common multimedia application WINAMP V1.x is taken up as a case study. With the minimal hardware using commercially available components user can also switch on/shutdown PC at the set alarm time.

This project describes how to control a PC application program using a simple RC5 compliant remote. A popular multimedia application WINAMP is selected for this particular project. In LPC2138 is implemented a module for the real-time decoding of IR signals. The decoder is interrupt driven so as to keep the power consumption to the minimum. Taking advantage of the in-built UARTs in LPC2138, the decoded signals carries on to PC via COM port. The application software provided along with this project includes functions to produce the desired effects viz increase/decrease system volume, select next/previous song in WINAMP. This code running in the background constantly monitors the selected COM port and executes the assigned functions. This project also has add-on features like setting Real Time Clock and alarm time of LPC2138. This feature extends the scope of the project as to ON the PC at the set alarm time and respond to the IR signals.

Block Diagram

