

C51 Snakes - A Nokia inspired game built on 8051

ajay_bhargav, Wed Nov 04 2009, 02:52 pm

You all might have played the famous game of all time "Snakes" on your Nokia mobile phones. Inspired from the same [Sandeep Sasi](#) went far from just playing the game and thought of implementing it on 8051 platform.

The game is built on AT89S51 MCU operating at 27MHz crystal frequency. The game uses a 16 * 8 LED dot matrix display and five way keys for user interface. A dedicated delay settings key provides one touch access to the delay settings mode where the speed of the Snake can be adjusted. Highlights of the game are:

- » As in the original game, the Snake grows in size as it snatches the eggs
- » Eggs appear periodically on the screen at random pixels and will disappear if not snatched within a certain period of time
- » The snake sees no boundaries at the edges of the display, will propagate in to any edge and enter from the opposite edge
- » The Snake can be accelerated / decelerated on the fly
- » There is also a separate delay settings mode to adjust the Snake's speed
- » The game ends when the Snake collides with itself
- » The total eggs snatched is then displayed as the game score
- » The gaming console will hibernate if no user event occurs in 25secs! The game can be resumed by pressing external interrupt / master reset keys!

Small video demonstrating the project:

[yt=425,344]2hflCwJzKwI[/yt]

The project code is not just well designed but also very well documented for a newbie to understand how things are being done. The complete documentation along with source code and schematics can be downloaded from the download section.

Download it here: **C51 Snakes - A Nokia inspired game built on 8051**