GUI BASED IMPLEMENTATION OF LED MATRIX (CODE GENERATOR)

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# ABSTRACT

This mini project uses visual studio and c# to enable the user to type a string to have the code generated for it to be displayed in a 8 x 8 LED MATRIX. The code is compiled using Atmel and burned into Atmega32A microcontroller using Extreme Burner. The user can also specify which LED’s to glow as a pattern and have the desired output displayed on LED Matrix.

## Environment

Microsoft Visual Studio 2012(Project style: Windows Forms Application)

Atmel Studio 2010(Project style: GCC C Executable Project)

## C# and .Net Framework

.Net is a powerful programming platform with integrated visualization programming environment. C# is designed for .Net platform. C# is simple, modern, object oriented and type safe programming language that combines the high productivity of rapid application development languages with raw power of C and C++. C# provides friendly interface, fast execution speed , high security with creating EXE files and can be run with .net framework instead of entire software.

## Important Features

* GUI(Graphic user interface)
* POV(persistence of vision)
* ***Any pattern of user’s choice can be displayed***
* All English alphabets and words supported

## SOFTWARE

Visual studio, Extreme burner, Atmel studio

## HARDWARE

LED Matrix, Atmega32a microcontroller, AVR Burner, Laptop/Desktop