

Ambilight System

An ambilight system is a system made with a screen that has leds on its back along the edges to imitate the colours that are present on the screen itself to create a more cinematic experience. The ambilight is generally a feature for these displays, being built into them directly. I plan on making a DIY ambilight system for my screen using an led strip and the Arduino uno board.

The idea came to me when I was watching a movie at a friend's house that had a tv screen with such a system implemented. I thought it was very interesting and wanted to make one for my pc's display.

I think this is a good idea because it allows you to add an extra add-on to your display without having to pay for new expensive screen.

General Description

The way it works is you take an LED strip and mount it on the back edges of your screen. You connect it to one of the input pins on Arduino. Thankfully, there is a library called "Fastled" that makes our coding easier when it comes to programming it. Using a free app for windows called "Adalight" we can enable our DIY made ambilight system to properly follow the colors that are on screen.



Hardware Design

The needed components are: Arduino Uno Wires LED Strip A screen A power supply A pc with windows on it



The electric scheme: 

Software Design

(Still in progress) In the Arduino IDE we also use the Fastled library to help with the animations for our led strip. We also use an app called "Prismatik" to help connect our DIY ambilight system to the pc.

The coding part can be found here: <https://github.com/ogdinca/Ambilight-Project-MA>

Rezultate Obținute

Video Results

Concluzii

Deși nu am mers cum mi-am dorit într-un final, rezultatul se apropie foarte mult de cel pe care îl așteptam.

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25.05.2022 Încă nu merge proiectul cum ar trebui

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