VirtualLogicLabs

Group #10
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https://github.com/SagarPhanda/VirtualLogicLabs

Product Brochure

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Product Overview

Virtual Logic Labs is a desktop application learning tool aimed at allowing students to gain experience in a Digital Logic Design lab-like setting without the need for access to the require resources. It has the ability to test the students' comprehension of certain topics across the realm of digital logic, while allowing teachers to keep track of the students and their progress.
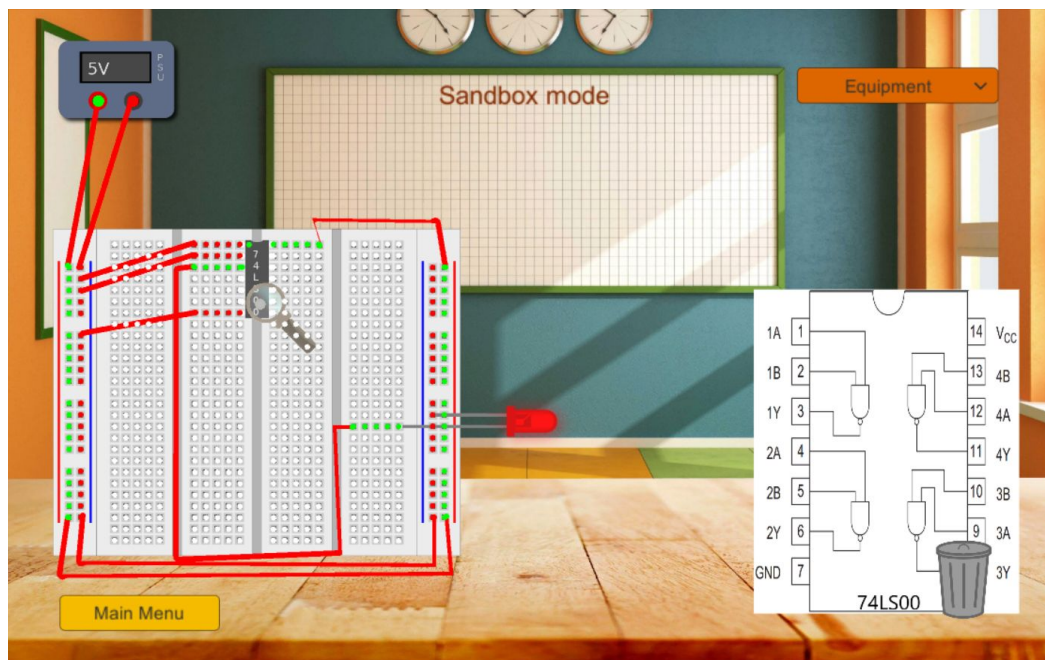
Details and Features

- Three interactive digital logic labs for students to complete
- Accurate simulation of real world digital logic circuits
- Pre and post tests for each lab to ensure that students understand the concepts
- A grading system to assign grades to students based on their performance
- A grade view for both students and instructors to see the grades that they have received
- A chat for students to interact with each other and with the instructors
- A cheat detection feature
- A timer to keep track of how long each student spends on the labs
- Detailed images and visuals demonstrating the functionality of each chip (provided through the use of the magnifying glass feature)
- Login functionality for both teachers/students, complete with password recovery
- Provides teachers the ability to change or delete student grades
- Saves the state of labs to allow the user to return and complete it at another time

Hardware Requirements

- OS: Windows XP SP2+ , Ubuntu 12.04+, SteamOS+
- Graphics card: DX9 (shader model 3.0) or DX11 with feature level 9.3 capabilities
- CPU: SSE2 instruction set support
- Screen: minimum resolution of 720p
- Minimum network bandwidth: 56k
- Minimum hard drive space: 100 megabytes