Introduction

Welcome to Digital Logic Through Minecraft!

Akilesh Praveen - CMSC389E

UMD

March 5, 2020

Agenda

Buy Minecraft!

- It is essential to this course that you buy the Java edition of Minecraft from Mojang's official website, located at https://www.minecraft.net/en-us/store/minecraft-java-edition
- We cannot facilitate the use of the Pocket Edition, Bedrock Edition, and Console Versions of Minecraft
- At least it's cheaper than a textbook

Project 0

- Project 0 is Tutorial Island, and is meant to get you up and running with Minecraft.
- We encourage you to come to office hours to ensure that you are able to run and submit your project properly.
- Don't worry too much, more on projects later.

Instructors

Akilesh Praveen   Ashwath Krishnan

What to Expect

- A continuation of logic gates from CMSC250
- Or, implementations of what you learned in ENEE244
- We will be building the logic structures that are the foundations of computer hardware
- Starting off with logic gates and adders and eventually moving onto more advanced concepts such as latches and memory

Class Structure

- All projects will be submitted as Minecraft worlds on the CS submit server (submit.cs.umd.edu)
- One project per week
  - Assigned Friday, due the next Monday
  - You are given a little over a week for each project
- 13 total lectures
- 1 in-class midterm
- Cumulative final project

Class Structure

- Theory taught in class during lecture, with extra video resources provided on the course website
- Practice handed in as projects and graded
- Extra credit! (Explained later)

Class Structure

- You will be provided with sufficient theoretical background during lecture, supplemented by additional content posted on the course website if you wish to view it.
- A project description will be uploaded to the course website each class, which will apply what you've learned.
- You are permitted 2 unexcused absences, but are still required to do the project assigned that day in class.
- See syllabus for more details

What to Get Familiar With

- Minecraft Redstone basics
- Basic logic design schemes, symbols, truth tables
- Submitting projects
- Your classmates!
- The Course Website- Extensive resources for all these topics can be found here (and more)

Participation

- Graded through ELMS quizzes
- Timed and available during class
- Up to a possible 10% of extra total participation points
- Participation is the same as extra credit
    - Even if you get a 0 for participation, you can still get 100% in the class, but would you all really do that to us?
- Now we've got the first quiz for you!
- Usually, these quizzes are open till the end of class, but since it's the first one, this will remain open until midnight tonight.

Midterm

- Based on projects and concepts taught in class
- Date: TBD
- In class, on paper

Projects

- Assigned on Friday, based on the concepts covered in lecture.
- Will be posted under their corresponding week on the course website
- Due 10 days later, on Monday at 11:59PM
- IMPORTANT! You need to submit a GFA for each project in order to pass!
- All projects can be done with partners
  - Check the 'partner project guidelines' link on the course website for instructions on how to properly submit partner projects

Online Resources

- The course website contains videos, cheat sheets, guides, and external links that provide extensive supplementary content for this course. It's highly recommended you take a look.
- Q/A on Piazza
    - Talk to one of us after class if you are unable to access the Piazza
    - We will also be posting updates on Piazza, so make sure to check it fairly often

Project 0

Project 0

- Now, to get you familiarized with how projects will work in this course, we'll walk you through how Project 0 should be turned in.
- Afterward, we can help you all with your laptops and setting them up so you're able to submit the first project
- Deliverables:
    - Buy Minecraft
    - Send your username to apraveen@cs.umd.edu for whitelisting
    - Make sure you're on the CMSC389E Piazza
    - Complete and submit the tutorial island project to the CS submit server