

# Logisim Design

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**Due** Tuesday by 5pm      **Points** 100      **Submitting** a file upload      **File Types** pdf  
**Available** until Sep 17 at 11pm

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Start this assignment by reading through the [LogiSim Problem Statement](#)

. Your assignment is to develop a design, primarily, for the user interface of this software. What I mean by that is that you are to detail the user experience completely. You may assume that it is possible to design the simulation portion and you do not need to elaborate on the details of the software architecture or specify how you will eventually solve that aspect of the problem. That said, do keep in mind that you will have to take more about the software structure in the second portion of the design phase which follows immediately after this assignment.

Thus, you will be describing in detail the **use cases** of the system in an informal essay form. Your document should include sketches of the user interface, it should include a detailed discussion of how the software operates as the user interacts with the application. If it helps you to get the big picture, imagine that you are writing a manual for the software. For example, how does the user add gates, remove gates, connect gates, run the simulation?

Don't get caught up in the idea of writing a manual, that's just to help you get started and focused. You should be describing the software in such a way that you could give your document to another programmer and they would be able to use your document to develop their own version of the software.

Take a look in the Ivan Marsic book for examples of use cases, however, there is no need to use the structured format presented. You should be aiming for a technical report style, as discussed in class. You can find examples of design documents online, however, I am much more interested in the quality of the content than any specific format. Do not spend excessive amount of time creating glossaries or a detailed table of contents. Do spend time making sure that your communication is well written and that you have thought through how the user will use your software. Do spend time thinking about how you are going to constrain the design and talk about that explicitly. For example, make sure that you've thought about the sizes of gates, how does that impact the usage? How will the connections between gates work and can you make that simple and easy to do within the project's time constraints.

You must sketch your U/I but do not spend a lot of time trying to make this sketch look pretty. At the same time, do focus on neatness and quality in your choice of structure.

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If you have questions, post them on Piazza.