# Design Questions

* What do we want people to learn from each section of the machine?
  + Example: For memory, are we teaching about a more realistic structure of memory and how data is stored, or is the memory going to be representative, not showing how it actually looks, instead having the included data be readable to humans so it is clear what is being stored
* How theoretical vs realistic does the design need to be?
  + A purely theoretical design would act as a demonstration of the theory behind how computers work.The design would be less focused on being able to do traditional calculations and more on pure demonstration of the cause and effect that allow the machine to function. The best example would be a Turing machine.
  + A purely realistic design would be less focused on demonstrating the core theory behind the inner workings in a computer and would be more focused on replicating the path of the data flow within a computer. This design would be more complicated, having more pieces than an older, simpler computer. The best example of this would be a computer that copies the core layout and architecture of a modern processor architecture(Any of the Zen or Lake architectures)
* How in depth vs practical will the design be?
  + An extremely in depth design would show more of the inner workings of the computer, a more in depth design would need to be larger and more complex and would work slower. An increase in the depth would make the computer less capable of demonstrating complex programs.
  + An extremely practical design would show less of the inner workings and would simplify where possible. A design like this would be smaller and would work faster. This style of design would allow for more complex programs to be demonstrated

\*different sections of the design could have different combinations of attributes so long as they are not significantly different

* How flexible will the design be?
  + The level of flexibility will determine the range of programs it could complete and the ease of creating new programs. In a foam block design the only programs that are able to be represented are programs that the blocks have been designed for. If display where used or dip switches a wider variety of programs could be shown
  + The cost to increased flexibility is cost and time, for all intents and purposes increasing flexibility without any concessions or simplifications to the design will increase both the time required and the cost exponentially.