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An arithmetic logic unit is a digital circuit used to perform arithmetic and logic operations. It represents the fundamental building block of the central processing unit of a computer. Modern CPUs contain very powerful and complex ALUs. But here we built a much simpler version of the ALU.

The basic idea of an ALU that we have implemented is not suitable for complex applications such as multiplication, division and floating point operations. They are very simple and cheap to implement. It is also relatively slow, compared to the hardwired alternatives. Also, in our version we are not using pipelining, which could increase the power of the ALU.

Finally, the ALU faces several shortcomings as far as planning. As this was our first real experience being thrown into the waters of Verilog, there were many stumbling blocks in our path. The code is not all written under the same organizational conventions, which has a relatively small impact on this project. However, going forward, it will be important to correct these problems to make it easier to read when something inevitably goes wrong and there are dependencies on this original ALU program.