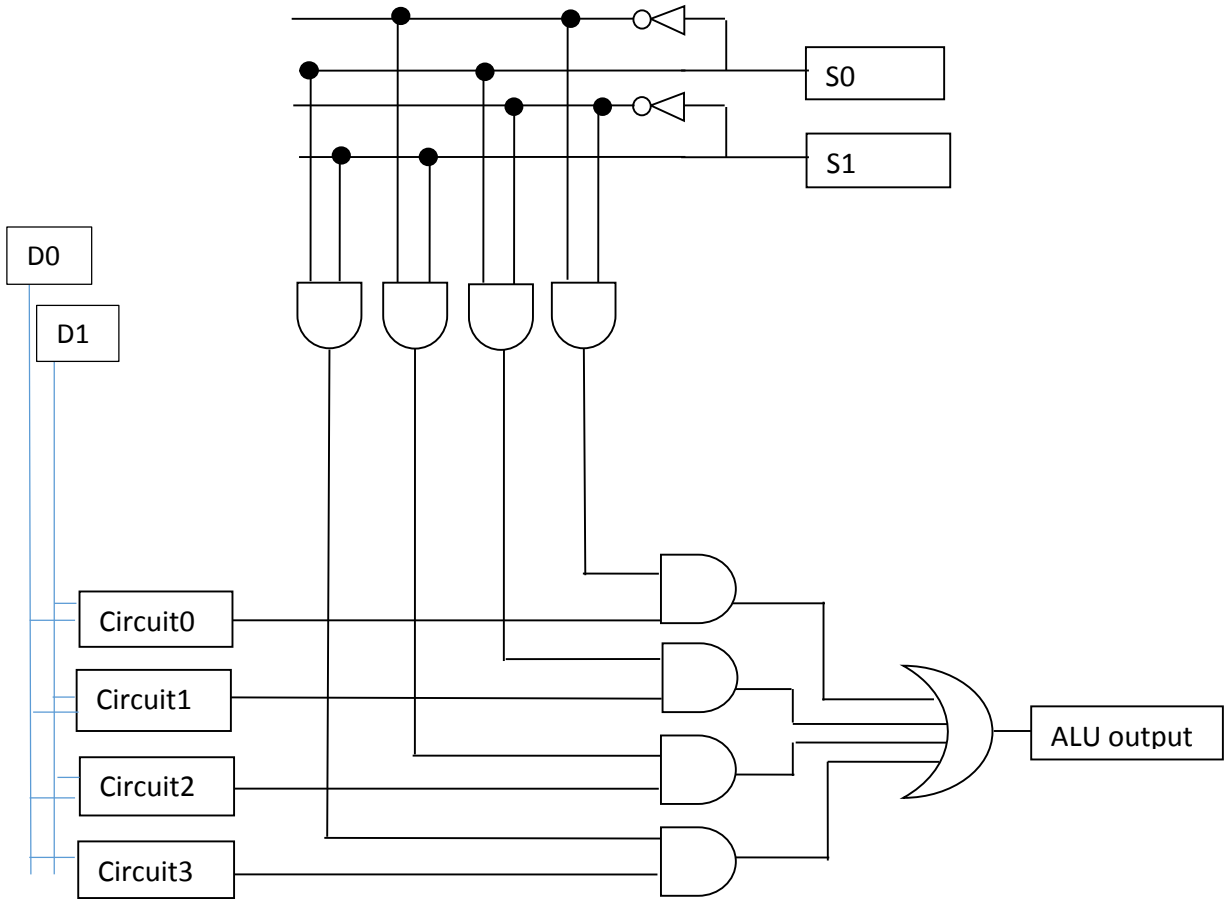
One Bit ALU



Instruction: S1 S0 D1 D0
Opcode: S1 S0
Operand(s): D1 D0

Install iverilog.
For windows, go in DOS prompt: Start -> Run -> cmd
Go to the directory of your choice, or if path not work, go to iverilog directory.
Enter the following text using a plain text editor (edit, etc) and name it "hello.vl".

```
module main();

  initial
    begin
      $display("I want to pass 260.");
      $finish ;
    end

  endmodule
```

Next, compile this program:

```
% iverilog -o hello hello.vl
```

Next, run this program:

```
% vvp hello
I want to pass 260.
```

---------- Example 1 ----------

/* guess what the output would be first, then run to see */

```
module main();
reg x, y;
wire nandout;

andgate myand(x,y,nandout);

initial
  begin
  x=1;  y=1;
  $display("x=%b NAND y=%b out=%b", x, y, nandout);
  $finish;
endmodule

module nandgate(a,b, out);
input a,b;
output out;
wire out;
wire w0;

 assign w0 = a & b;
 assign out = ~w0;

endmodule
```