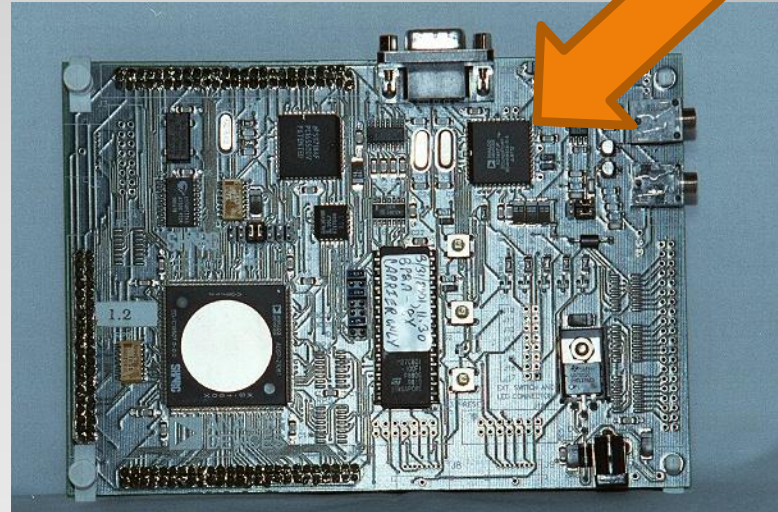


What does Boris do?

a progressively more technical answer



 **ADI**

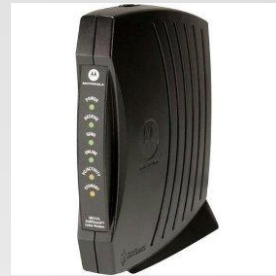


Boris helps make chips at ADI.

- Help during the design process
- Primary lab-tester of chips
 - Design a test PCB (a PCB is the green board on the last page)
 - Test a few chips in the lab to see if there are any issues
 - Come up with fixes with Design Engineers
- Help the Test Engineer program large testers for the chip to test large numbers

Boris is a Product Engineer.

- Where are high-speed DACs used?
 - Cell Phone Infrastructure (GSM, CDMA, etc)
 - Cable modems and boxes
 - Radar
 - Automatic test equipment
 - Avionics equipment
 - Wireless (point-to-point, WiMax, etc)



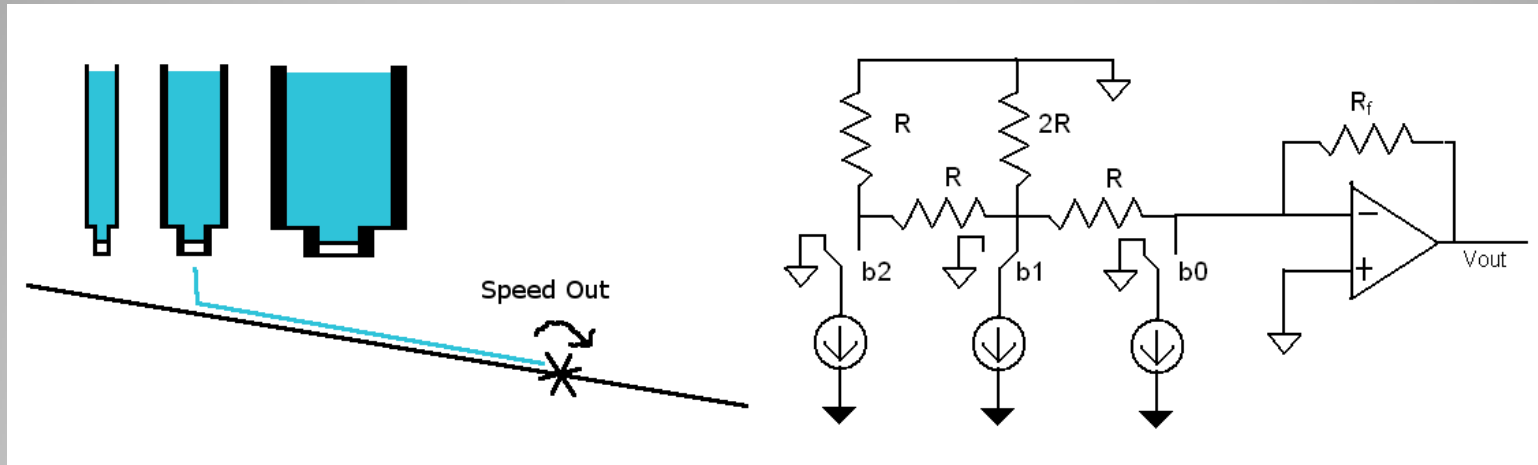
Boris works on high-speed DACs.

- What is a DAC?
 - A Digital to Analog Converter (aka DAC or D/A)
 - It changes a digital version of a signal to an analog version of the same signal.
- Example:
 - 50millivolts is represented in digital form
 - The DAC sees it's input in binary (0b' **110010**)
 - It outputs an analog signal – in this case, it was a representation of 50mV and that's what the DAC would output.



Boris works on DACs.

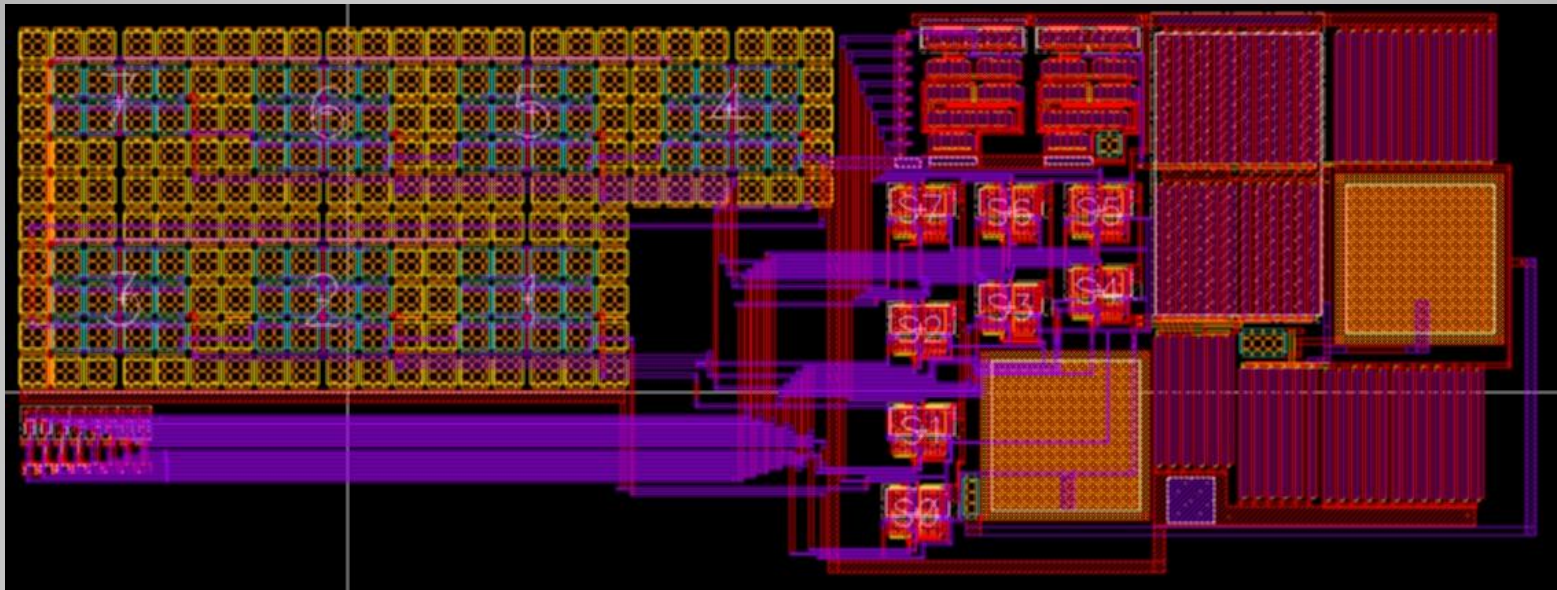
- Two simple DACs



In both of these cases, we get an analog value (the wheel speed or the voltage output) that depends on a digital value (the position of the three valves/switches). Due to the differing contributions of each source, the position of the valves/switches correspond to a unique analog value.

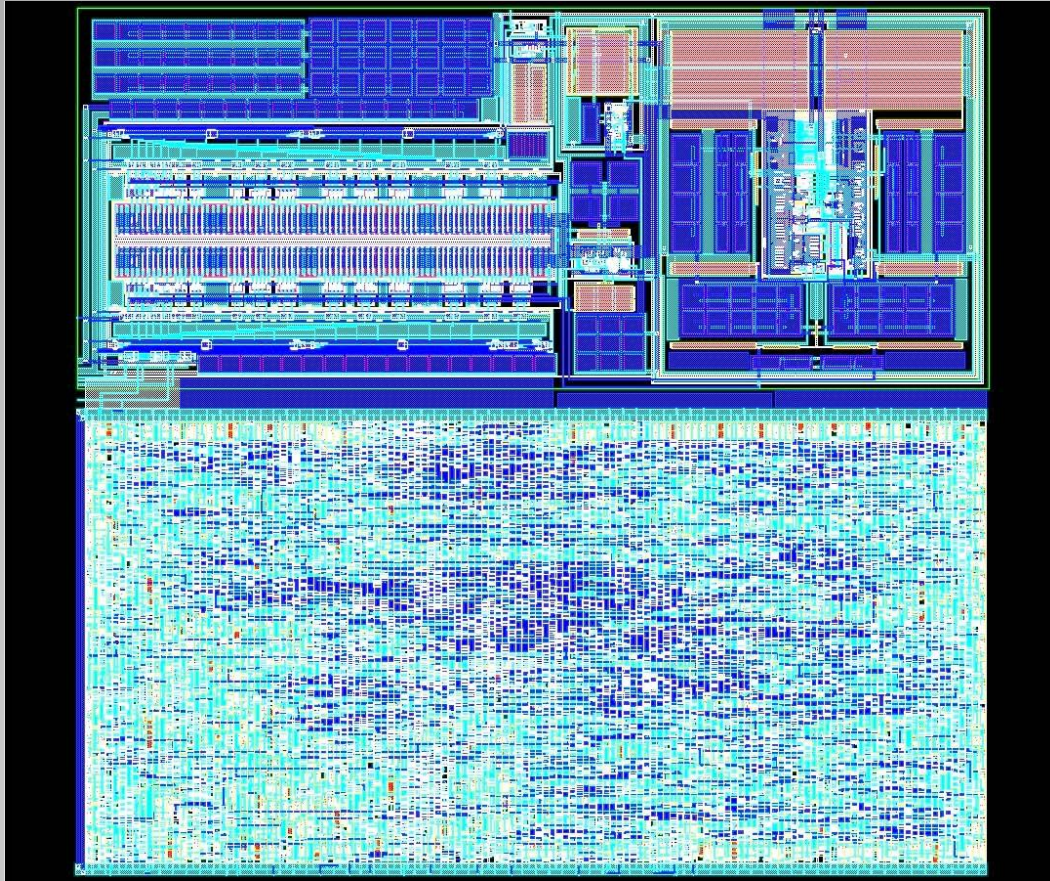
Boris works on DACs.

- A very slightly larger version of the circuit on the last page looks like this when designing it on a chip (VLSI layout)



Boris works on DACs.

- Here's an example of a real DAC by ADI



It's much more complicated

:-P

Boris works on DACs at ADI.