

**Moore's Law:** Moore's Law predicted that transistor density would double every 2 years. And, it is not a physical law, just an observation.

The physical limitations that have prevented Moore's law from continuing to be true is given below:

- Transistors consume power when they switch
- Increasing transistor density leads to increased power consumption
- High power leads to high temperature
- Others, voltage can't go too low according to Dennard Scaling
- And can't increase frequency
- Transistor leaks off power even when it's not switching