

Clock Frequency Limitations of [[Combinational Circuits]]

- limited by the time it needs to compute its outputs
- bottleneck is path with longest propagation delay
 - defines maximum clock rate

Impact of Temperature

- high temperature => slower [[Transistors]]
- overclocking CPU
 - might produce more heat
 - slowdown might lead to uncompleted computations
 - processor crashes

Clock cycles

- time divided in discrete slices
- clock period
 - time between two rising clock edges

