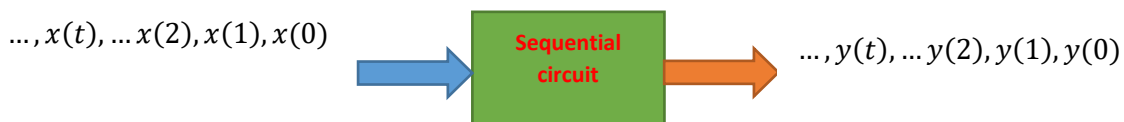


A combinational circuit is a logic circuit whose output only depends on the current logic values on its input.



$$y(t) = f(x(t))$$

The output of a sequential circuit is a function of the current and past logic values on its input.



$$y(t) = f(x(t), x(t - 1), \dots, x(t - i), \dots)$$

Therefore, sequential circuits require some memory to save the past input data that have an impact on the current output.