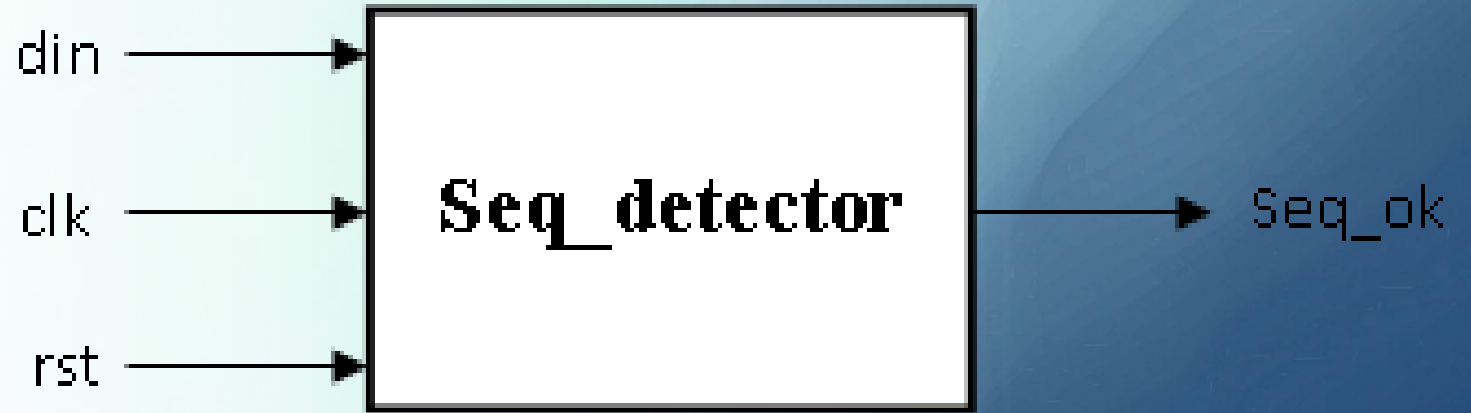




Sequence detector

Dr. Fatma Hanafy Elfouly

Sequence detector

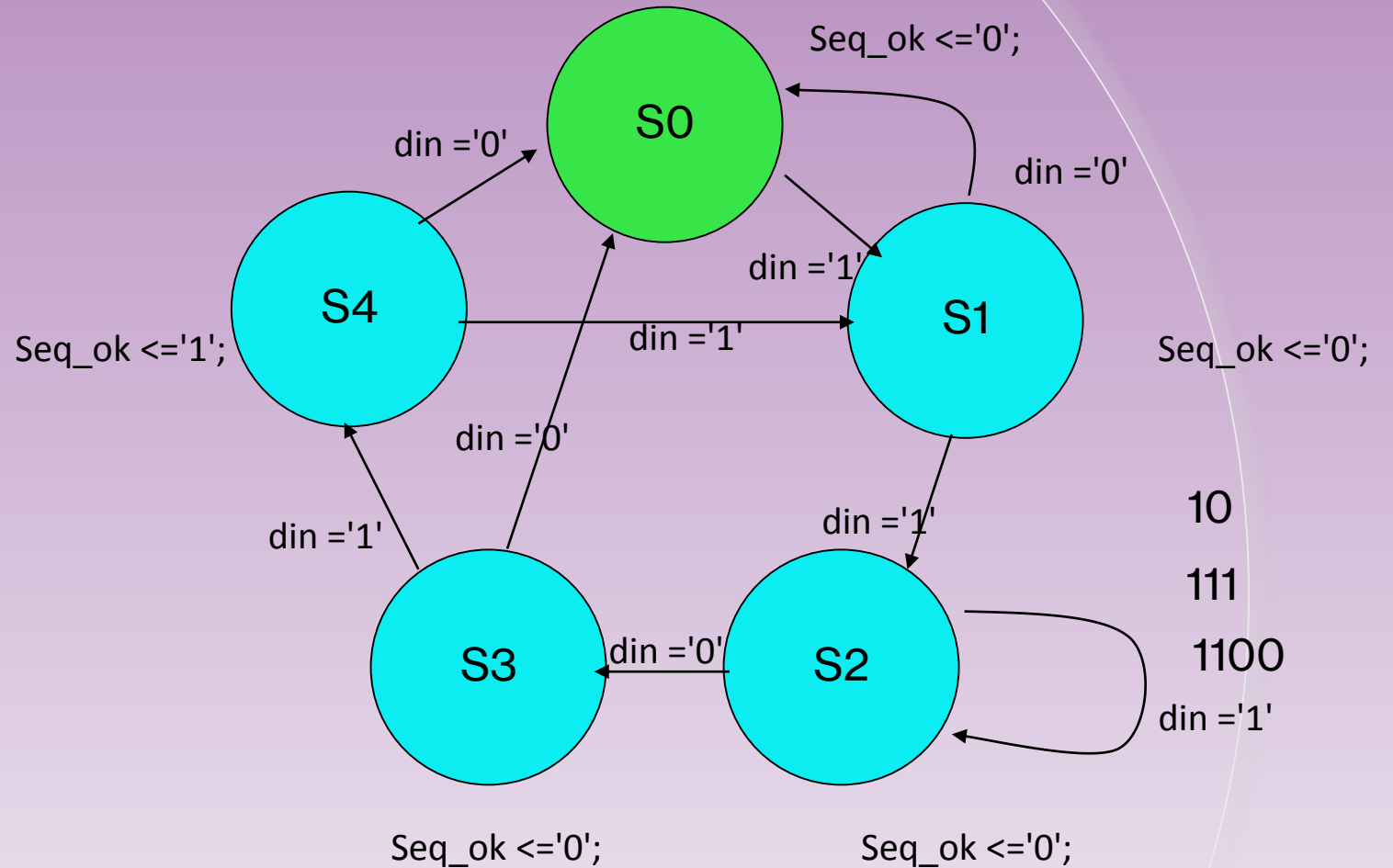


- ❖ Contains 2 types(overlapped & non-overlapped)
- ❖ Can be in extracting any fixed sequence in a digital frame
- ❖ no. of states = no. of bits +1

Sequence detector

Without overlap

11011101

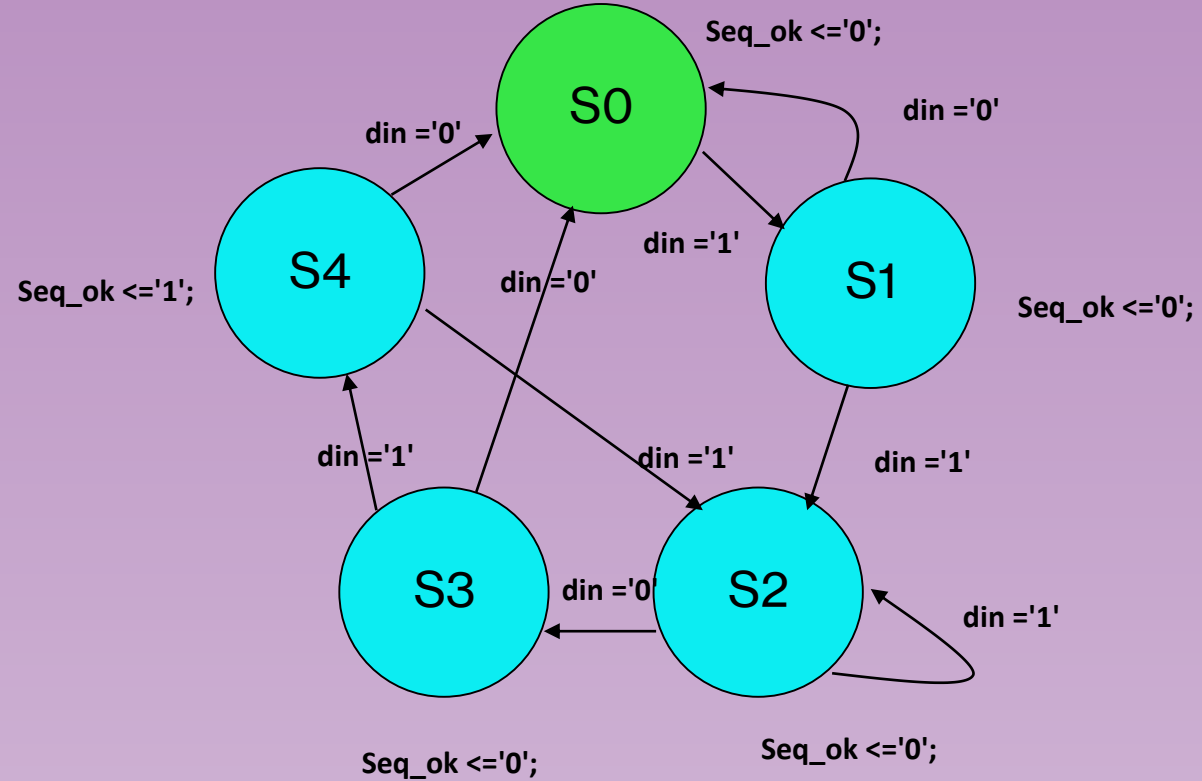


Design and simulate the finite state machine FSM needed for a sequence detector to detect the sequence (i.e. "1101") when applied at its input.

Sequence detector

With overlap

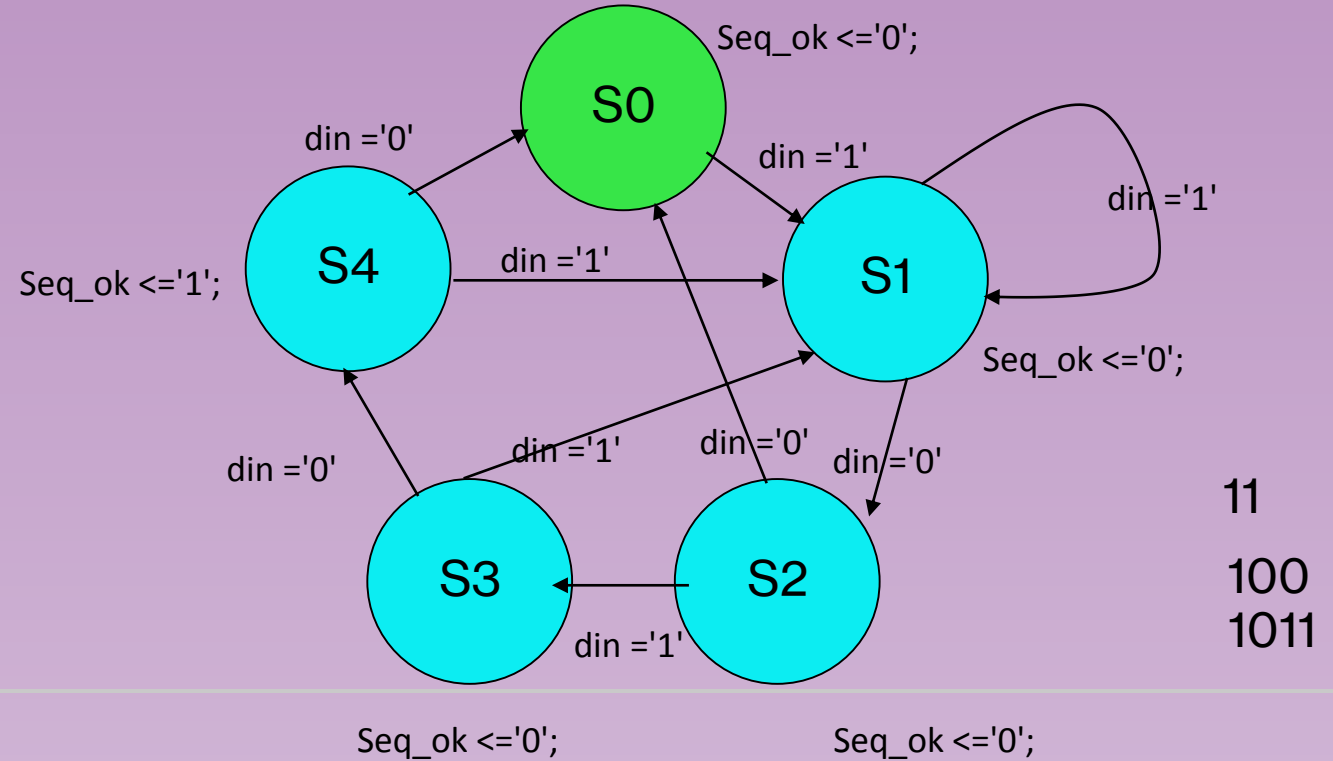
Ex: 0101101100
 ↑
 overlap



Design and simulate the finite state machine FSM needed for a sequence detector to detect the sequence (i.e. "1101") when applied at its input.

Sequence detector

Without overlap

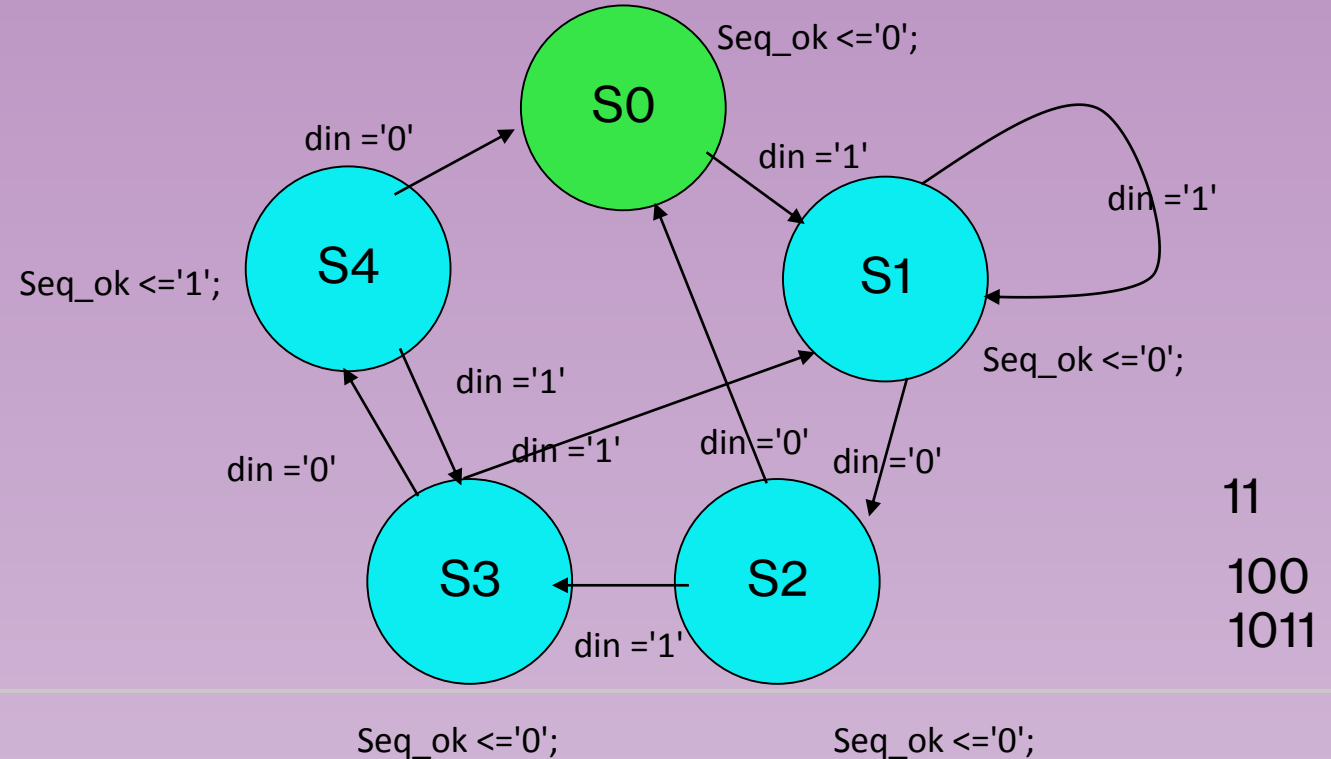


Design and simulate the finite state machine FSM needed for a sequence detector to detect the sequence (i.e. "1010") when applied at its input.

Sequence detector

With overlap

Ex: 010 1010 1100
 ↑
 overlap



Design and simulate the finite state machine FSM needed for a sequence detector to detect the sequence (i.e. "1010") when applied at its input.