Lab Report

LAB — 10 CSE — 206

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Lab-10

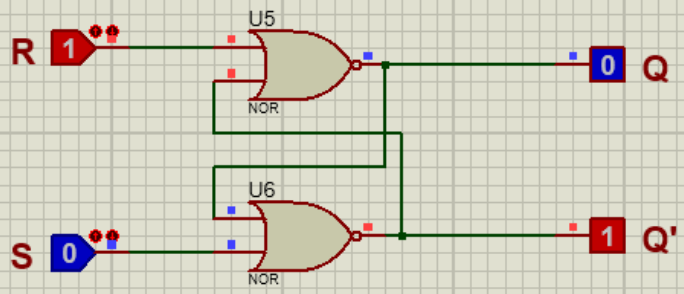
Name of the experiment: Construct, test and investigate the operation of various flipflops and latches.

Description:

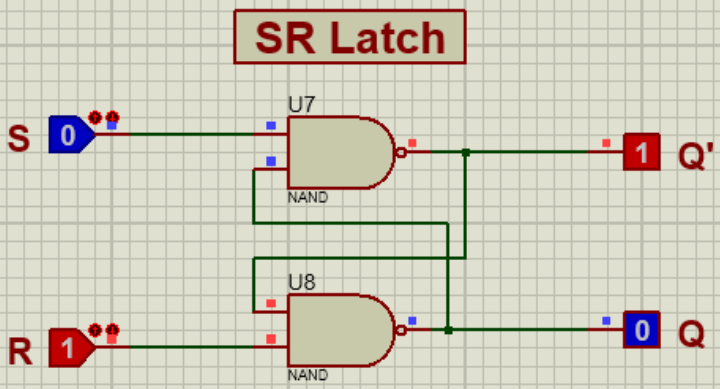
Latch: A latch is a storage device that holds the data using the feedback lane. The latch stores 1-bit until the devedevice set to 1. The latch changes the stored data and constantly trials the inputs when the enable input set to 1. Latches are (SR, JK, T, D, RS) types.

Flip-flop: A flip-flop is an electronic circuit with two stable states that can be used to store binary data. The stored data can be changed by applying varying inputs. Flipflops are also having different types like- D-flip-flop, JK flipflop etc.

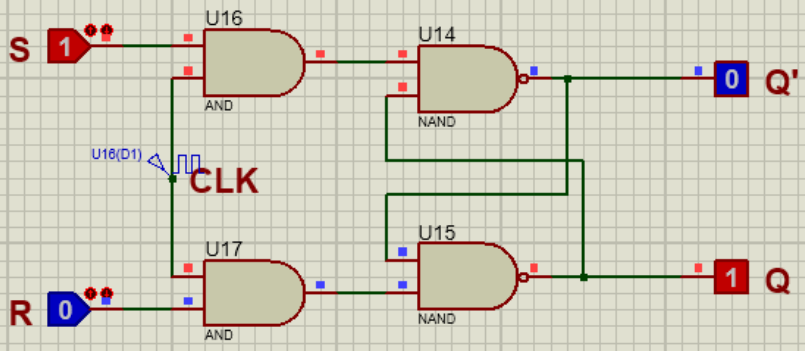
RS Latch



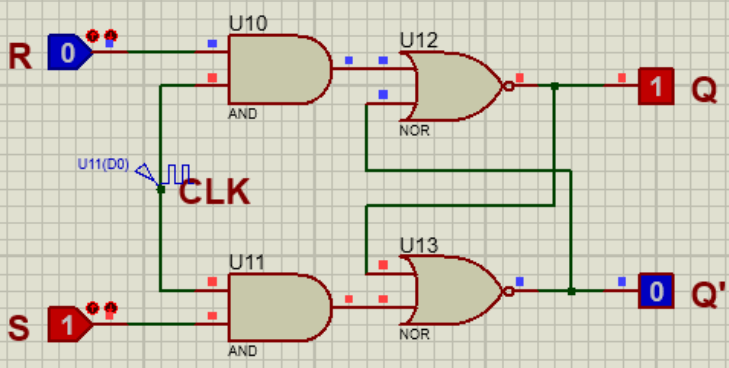
SR Latch



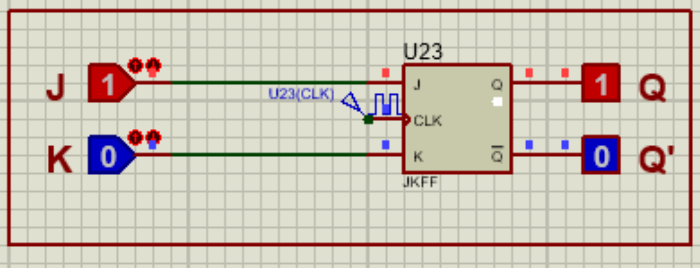
SR Flip-Flop



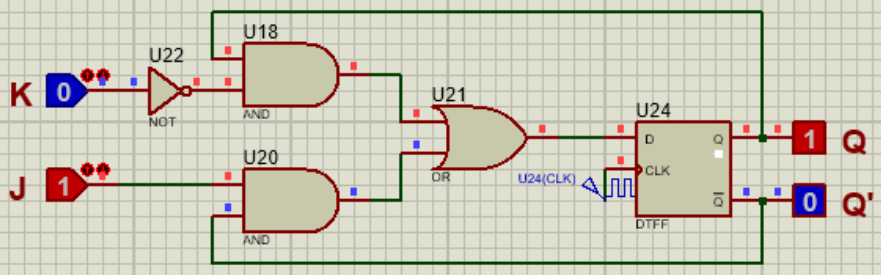
RS Flip-Flop



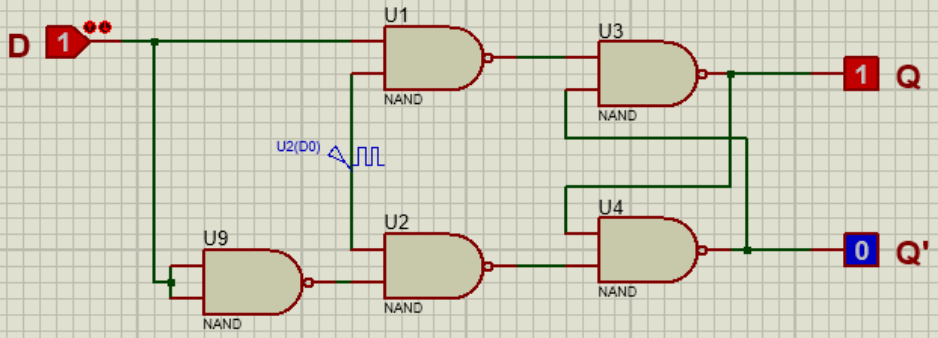
JK Flip-Flop

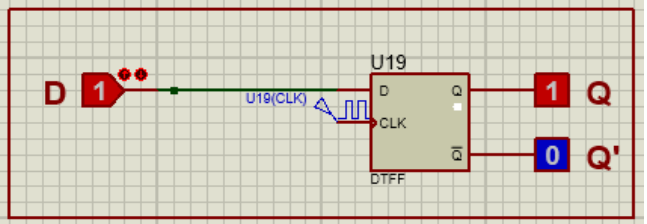


JK Flip-Flop Using D Flip-Flop

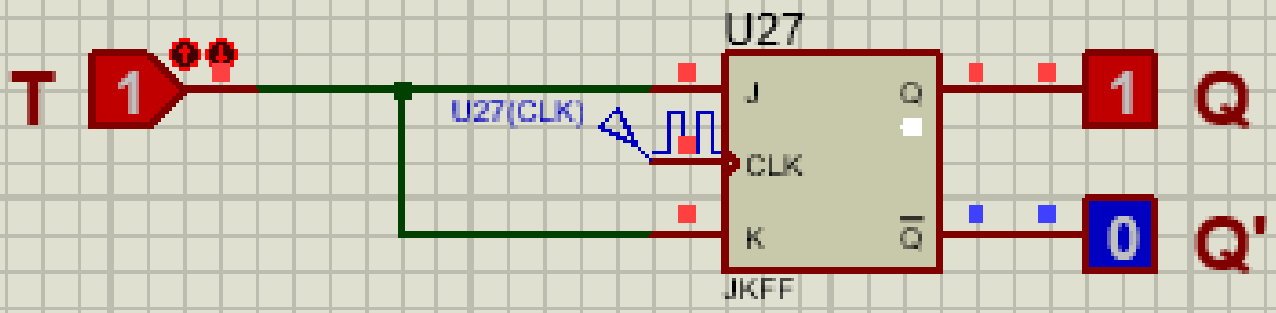


D Flip-Flop

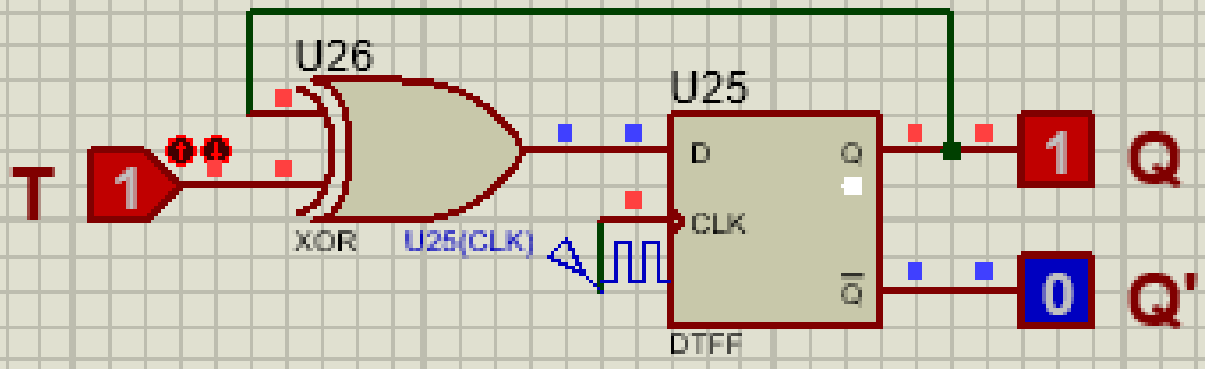




T Flip-Flop Using JK Flip-Flop



T Flip-Flop Using D Flip-Flop



Conclusion:

(i) We have learnt about the topic of latches and flip-flops.

(ii) We have learnt how to implement circuits of latches and flipflops.

(iii) We learnt how we can make flipflops with latches.

THE END