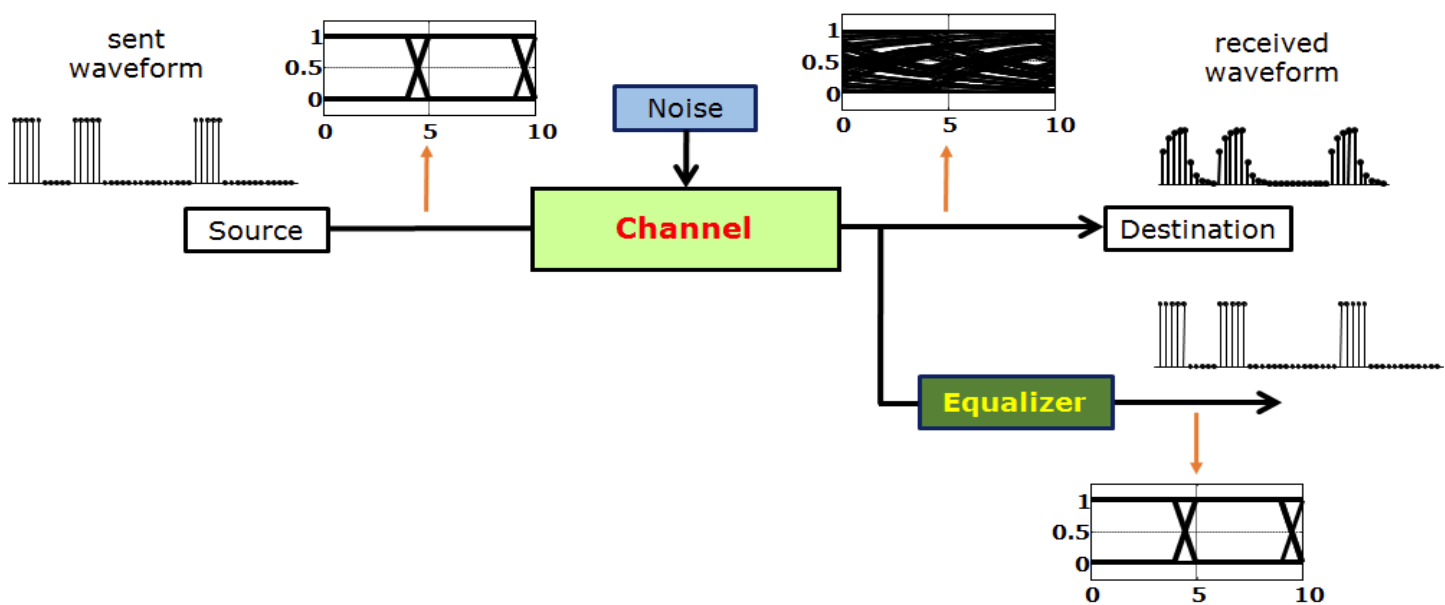


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LAB 6 - OVERALL OBJECTIVES

The objective of this lab is to implement the equalizer, which compensates for the effects of the channel. We first characterize relationship between the channel input and output. This knowledge aids in the design of the equalizer. We then investigate the effect of the equalizer by comparing the eye diagram for the received waveforms with and without equalization. Finally, we evaluate the bit error rate of our communication system with and without the equalizer.



There are four tasks in this lab.

In task 1, you will fit the step response of a communication channel and estimate the parameters of the exponential channel response.

In task 2, you will write the code that implements the equalizer and compare the eye diagrams of the received signal with and without equalization.

In task 3, you will compare the eye diagrams of equalized and unequalized waveforms with different bit times.

In task 4, you will evaluate the performance of the equalizer in reducing the bit error rate of the communication system.



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