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### **Square Wave**

```
clc;
clear;
close all;
```

#### **Parameters**

# Signal generation (example: sinusoidal signal)

## Noise generation

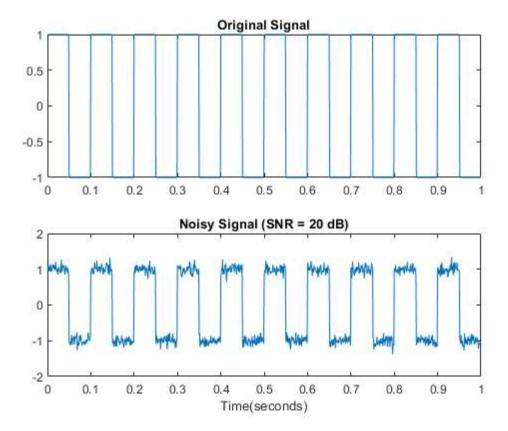
## Add noise to the signal

```
noisy_signal = signal + noise;
```

# Plot the original signal and the noisy signal

```
figure;
subplot(2,1,1);
plot(t, signal);
title('Original Signal');

subplot(2,1,2);
plot(t, noisy_signal);
title(['Noisy Signal (SNR = ' num2str(SNR_dB) ' dB)']);
xlabel('Time(seconds)');
```



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