

# Digital Filters & Systems

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## 📁 DTLTI Systems, Transfer Functions, and the Z-transform

Explanation of Discrete Time Linear Time-Invariant Systems, transfer functions, and the Z-transform.

## 📁 Exponential Moving Average

Digital exponential moving average filters explained, as well as an implementation in C++, and simulation in MATLAB.

## 📁 Simple Moving Average

Digital simple moving average filters explained.

## 📁 Discretization

Converting continuous-time filters to discrete-time filters.

## Simple Finite Impulse Response Notch Filter

Designing a simple FIR notch filter to suppress a single frequency.