clc;

clear all;

close all;

% Open and read the file

data = load('emg\_healthy.txt'); % assumes two columns: time and amplitude

t = data(:, 1); % time values

emg = data(:, 2); % EMG signal values

fs = 1000; % Sampling frequency (Hz)

N = length(emg); % Number of samples

f = linspace(0, fs, N); % Frequency axis

Y = fft(emg); % Apply FFT

Y(1) = 0; % Remove DC component

Y\_mag = abs(Y); % Magnitude spectrum

[~, idx] = max(Y\_mag); % Index of dominant frequency

dominant\_freq = f(idx); % Value from frequency axis

fprintf('Correct Dominant Frequency: %f Hz\n', dominant\_freq);

**OUTPUT:**

**Correct Dominant Frequency: 1.808923 Hz**

**>>**