

Digital Video HW 1

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Observation –

The orientation of the DFT magnitude changes with the direction of the slide. It is normal to the direction of the slide, resulting in major changes on the DFT.

Matlab Code –

```
clear all
close all
clc
v = VideoReader('C:\Users\user1\Downloads\alpinesled.mp4');
i=0;
framecell=[];
outputVideo = VideoWriter('C:\Users\user1\Downloads\alpinedft');
outputVideo.FrameRate = v.FrameRate;
open(outputVideo)
while hasFrame(v)
    frame = readFrame(v);
    frame_gray=rgb2gray(frame);
    frame_dft=fft2(frame_gray);
    frame_dft_mag=abs(frame_dft);
    frame_dft_mag2=mat2gray(log10(frame_dft_mag +1));
    frame_dft_final=fftshift(frame_dft_mag2);
    writeVideo(outputVideo,frame_dft_final)
    i=i+1;
end

close(outputVideo)
```