

```
import cv2
from google.colab import files
import numpy as np
import os

uploaded = files.upload()

video_path = next(iter(uploaded))

cap = cv2.VideoCapture(video_path)

fps = cap.get(cv2.CAP_PROP_FPS)
width = int(cap.get(cv2.CAP_PROP_FRAME_WIDTH))
height = int(cap.get(cv2.CAP_PROP_FRAME_HEIGHT))

fourcc = cv2.VideoWriter_fourcc(*'mp4v')
out_normal = cv2.VideoWriter('normal.mp4', fourcc, fps, (width, height))
out_slow = cv2.VideoWriter('slow.mp4', fourcc, fps / 2, (width, height))
out_fast = cv2.VideoWriter('fast.mp4', fourcc, fps * 2, (width, height))

while cap.isOpened():
    ret, frame = cap.read()
    if not ret:
        break
    out_normal.write(frame)
    out_slow.write(frame)
    out_fast.write(frame)

cap.release()
out_normal.release()
out_slow.release()
out_fast.release()


from IPython.display import HTML
from base64 import b64encode

def show_video(file_name):
    mp4 = open(file_name, 'rb').read()
    data_url = "data:video/mp4;base64," + b64encode(mp4).decode()
    return HTML(f'<video width=400 controls><source src="{data_url}" type="video/mp4"></video>')

print("Normal Speed Video:")
display(show_video("normal.mp4"))

print("Slow Motion Video:")
display(show_video("slow.mp4"))

print("Fast Motion Video:")
display(show_video("fast.mp4"))
```

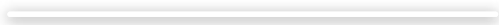
  No file chosen      Upload widget is only available when the cell has been executed in the current browser session. Please rerun this cell to enable.  
Saving elephant\_1280p.mp4 to elephant\_1280p (1).mp4  
Normal Speed Video:

0:00



Slow Motion Video:

0:00



Fast Motion Video: