

## Raspberry Pi python code for use with the camera:

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```
# - /var/www/html/take.py - Takes a picture using the Bullseye "libcamera" library
```

```
import os
import time
```

```
# - Takes a picture and saves it as "test.jpg"
```

```
os.system(f'libcamera-jpeg --nopreview --vflip --hflip -o test.jpg --width 1280 --height 720')
```

```
print("Done. Thank you.")
```

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```
# pi/Videos/TimeLapse/timelapse.py Timelapse using the Bullseye "libcamera" library
```

```
import os
import time
```

```
# Usage: "-t <number>" is the duration to be capturing frames in milliseconds. (ex: 30000 is 30 seconds. 60000 is one minu>
```

```
#      "timelapse <number>" is thre delay between capturing frames. (ex: "--timelapse 5000" captures a frame every 5 sec>
```

```
# "--vflip" and "--hflip" flip the image vertically and horizontally. Delete these if the camera is right side up.
```

```
os.system(f'libcamera-still --nopreview --vflip --hflip -t 300000 --timelapse 2500 --framestart 1 -o frames/image%04d.jpg --width 1280 --height 720')
```

```
# Code for stitching frames together with ffmpeg:
```

```
# ffmpeg -r 10 -f image2 -pattern_type glob -i 'image*.jpg' -s 1280x720 -vcodec libx264 timelapse.mp4
```

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```
# pi/Videos/TimeLapse/frames/st_cp.py -Stitch together fames with ffmpeg, move .mp4 video, and delete .jpg files
```

```
import os
import time
```

```
os.system(ffmpeg -r 10 -f image2 -pattern_type glob -i "image*.jpg" -s 1280x720 -vcodec libx264 /var/www/html/timelapse.mp4')
```

```
os.system(frm *.jpg')
```

```
print('Stitched, moved and deleted.')
```

```
print('Thank you!')
```