

Long exposures; going beyond the night and going beyond 30 seconds.

Everybody has seen star trail long exposures, car headlights and taillights streaming along on a flowing highway of lights. Fireworks are often long exposures, as well as night shots of spinning amusement park rides. Even long exposures of mountain lakes and ocean shorelines at night.

But what about venturing out in daylight and getting creative with long exposures?

Smaller apertures are not going to get you there. You need heavy ND filters to bring the light values down.

Digital Long Exposure Tips

- Use a sturdy tripod - \$20 is not going to get you there
- Use a cable release to go beyond 30 seconds- \$20 might get you there
- Charge your batteries and carry spares – AC adapter for really long exposures
- Shoot at your lowest ISO setting – remember 25 speed film?
- Don't be in a rush – rushing wastes time and good light – be there before the light
- Don't use small apertures with small format cameras if you care about sharp images
- Use ND filters to get to long exposures, even in full sun
- Be aware of the 4th dimension – time, what time does to a scene (water, moon, light, movement over time)
- Try the black hat method with timed events during a long exposure (fireworks) it works
- Expose properly, avoid exposure errors - use graduated ND filters or bracket when scenes go out of range
- For night shots, take a shot at high ISO to check everything, then calculate the proper exposure at low ISO
- For daylight remove the heavy ND filters, measure exposure and adjust as needed
- Know how to handle digital noise in your workflow

Popular slow shutter speed captures:

- Car headlights & taillights
- City lights
- Moving water
- Star trails
- Removing people in a busy place
- Feeling of speed inside a moving car
- Amusement park rides
- Fireworks
- Light painting

ND options

"Density" range:

0.1 = 1/3

0.2 = 2/3

0.3 = 1

0.4 = 1 1/3

0.5 = 1 2/3

0.6 = 2

0.7 = 2 1/3

0.8 = 2 2/3

0.9 = 3

1.0 = 3 1/3

2.0 = 6 2/3

3.0 = 10

4.0 = 13 1/3

ND2 = 1 stop

ND4 = 2 stops

ND8 = 3 stops

ND64 = 6 stops

ND100 = 6 2/3 stops

ND400 = 8 2/3 stops

ND10000 = 13 stops

ND1000000 = 20 stops - still available?

$n = 2^f$

where

n is NDn

and f = f-stop reduction.

NDx ----> Opacity ----> f-stop ----> % trans

2 ----> 0.3 ----> 1 ----> 50%

4 ----> 0.6 ----> 2 ----> 25%

8 ----> 0.9 ----> 3 ----> 12%

64 ----> 1.8 ----> 6 ----> 2%

1000 ----> 3.0 ----> 10 ----> less than 0.1

10000 ----> 4.0 ----> 13

1000000 ----> 6.0 ----> 20

Singh-Ray Vari-ND is a very nice tool.

Expensive for some, but gives you stop choices ranging from 2 to 8 stops at will.