

LEBANON CAMERA CLUB

Tripod Buying Guide

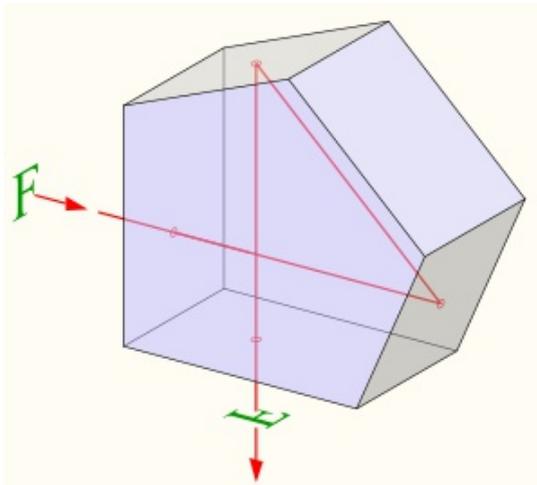
11/1/2016

Tripod Buying Guide

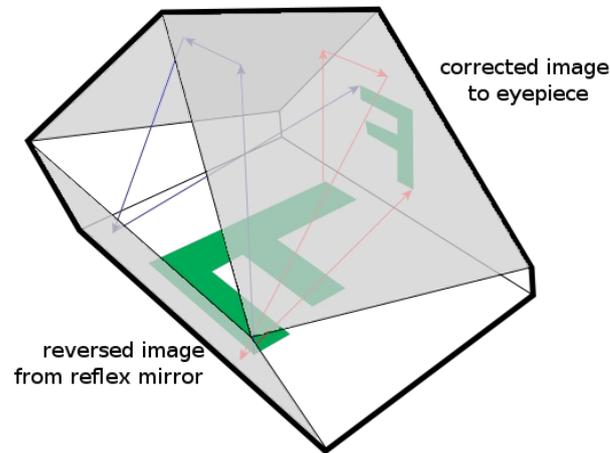
Stability

Note: mirror lockup (MLU) can be used to eliminate vibrations from mirror movement, if available

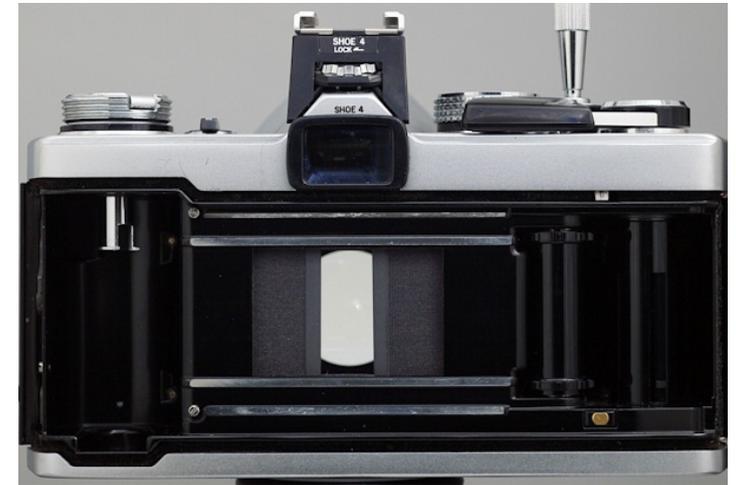
- Goal: steady platform for camera & lens
 - ◆ Use: slow shutter speed, heavy lens, or high magnification
 - ◆ Problem: moving parts on camera → vibrations
 - Mirror on DSLR → pentaprism (heavier) or penta-mirror (lighter)
 - Shutter on DSLR and mirrorless camera (lightest)



pentaprism



penta-mirror (3 mirrors)



focal plane shutter

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Stability

- Ideal properties

1. High stiffness → flexibility is a bad thing
2. High mass → heavy items are harder to move
 - Problem: need portability, and heavy tripod is hard to carry
 - Solution: sacrifice mass for portability, with maximum stiffness



telescope pedestal



vintage tripod



modern tripod

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Material

- **Wood**

- ◆ Traditionally used with old large format cameras

- ◆ **Pros**

- Can be beautifully made, vintage appeal

- ◆ **Cons**

- Not the lightest material – stiffness good with the proper wood

- Difficult to implement light & sturdy multiple leg sections

- Not compact

- Can be damaged by impacts, not inherently waterproof



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Material

- **Aluminum**
 - ◆ Top choice for decades, but less popular recently
 - ◆ **Pros**
 - Inexpensive material, can be extruded into strong shapes
 - Easy to make sturdy multiple leg sections
 - Aluminum is weatherproof (other parts may not be)
 - ◆ **Cons**
 - Stiffness can be high with large cross section, but weight increases

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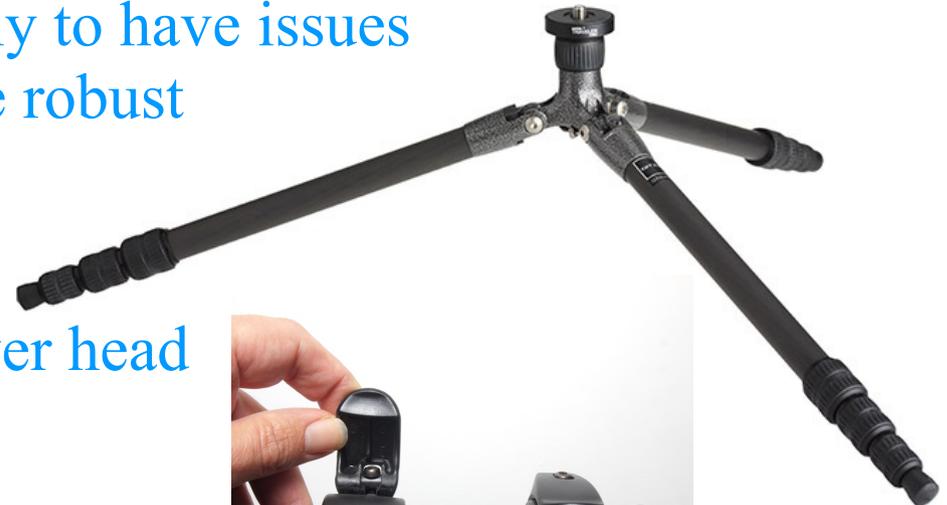
Material

- Carbon fiber
 - ◆ Current top choice material
 - ◆ Pros
 - Stiffest material, if made well
 - Lightweight
 - ◆ Cons
 - A fabricated material → construction method can affect quality
 - Not as weatherproof as aluminum
 - Expensive, but cost is going down

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Legs

- Can be purchased separately
 - ◆ 3/8" thread connection for head
- Sections
 - ◆ More sections = more compact = less stiff
 - ◆ Locking
 - Lever → convenient, more likely to have issues
 - Twist → need both hands, more robust
- Features
 - ◆ Additional leg movements
 - Legs spread farther apart to lower head



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Center column

- Increases height, reduces stability
 - ◆ Some photographers refuse to use it
- Features
 - ◆ Removable
 - ◆ Geared
 - More common on video tripods (adds weight)
 - ◆ Hanger for increasing mass
 - Water bottle or bag filled with rocks or sand
 - ◆ Repositionable
 - Horizontal for shooting straight down



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Head

- Device for orienting the camera relative to legs
 - ◆ Don't have to use one → could attach camera to legs
- Types
 - ◆ Pan tilt
 - Rotation about column axis + 1 or 2 tilt axes
 - Have to adjust axes independently → more tedious
 - May be geared for precise adjustment (weight penalty)
 - ◆ Ball
 - Ball & socket joint [+ rotation about column axis]
 - Fast adjustment
 - Larger ball = more stable
 - ◆ Gimbal
 - For big telephoto lenses → weight is balanced, can move easily



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Supported weight

Note: A “20 lb” tripod is probably better than a “10 lb” tripod, but can it hold **your** 20 lb load?

- Numbers often don't mean much (maybe in comparison)
 - ◆ No standard for testing tripods and heads
 - ◆ Reputation may be more important
- Reviews
 - ◆ Can be useful if the source is trusted
 - Try to find stable examples of equipment used in the field
- High quality companies (China, Italy, Swiss, Taiwan, USA)
 - ◆ Tripods: Gitzo (\$\$), Linhof (\$\$\$), Manfrotto, Really Right Stuff (\$\$), Velbon, Benro, Induro, Sirui, Feisol
 - ◆ Ball heads: Arca-Swiss (\$\$), Acratech, Kirk, Linhof (\$\$\$)
Manfrotto, Really Right Stuff
 - ◆ Geared heads: Arca-Swiss (\$\$\$), Linhof (\$\$\$\$), Manfrotto
 - ◆ Gimbal heads: Acratech, Jobu, Kirk, Manfrotto, Wimberley

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Cost

Note: "RoT" = "rule of thumb"

- **RoT: pay the cost of a good lens → \$500 to \$1000**
 - ◆ Depends on how & how much you are going to use it
 - Walk around the park? –or– Backpacking 15 miles in the woods?
 - A few times a year? –or– A few times per week?
 - ◆ A poor tripod is a waste of money
- **Examples**
 - Gitzo CF legs + Acratech ball head → $\$740 + \$350 = \$1090$
 - About \$700 in 2006 → well worth it, in my opinion
 - Sirui CF legs + Sirui ball head → $\$436 + \$142 = \$578$
 - Sirui is a new company out of China, seems to have good ratings
 - Manfrotto A1 legs + geared head → $\$250 + \$280 = \$530$
 - Better Manfrotto geared head (16.5 lbs vs 11 lbs) is \$520