## **Minimum System Requirements**

- \* 8" telescope
  - \* ~1m effective focal length
  - \* Equatorial mount or derotator
  - \* Tracking at lunar rate
- \* Astronomical video camera with adapter to fit telescope
  - \* NTSC or PAL
  - \* 1/2" detector
- \* Digitizer for digitizing video and creating a 720x480 .avi
  - \* Segment .avi to files less than 1GB (8000 frames)
- \* Time encoder/signal
  - \* GPS timestamp or WWV audio
- \* PC compatible computer
  - \* ~500GB free disk space
- \* Software for detecting flashes

## **System Examples**

- \* Telescopes:
  - 1) 10" f/4.7 Newtonian
  - 2) 14" (355mm) f/8 Meade RCX400 on an equatorial wedge with a 0.33x Optec focal reducer
  - 3) 20" (500mm) f/8.1 from Ritchey Chretien Optical Systems on a Paramount ME with an Optec focal reducer spaced for 0.25x
- \* Pyxis rotator to adjust camera angle
- \* C-mount 1 1/4" adapter and baffle
- \* ASTROVID StellaCam-EX (Sony HAD/EX chip) or Watec Ultimate 902H2 1/2" CCD
- \* SONY Video Walkman, GV-D800 NTSC, used as a FireWire digitizer
- \* KIWI-OSD GPS time encoder
- \* ICOM R8500 receiver for WWV time signal (if GPS not available)
- \* HP 2GHz Intel P4 with 1GB RAM
  - \* 480GB, 7200rpm SATA hard drive
  - \* FireWire card
- \* Software
  - \* Windows XP
  - \* WinDV, used for recording and segmenting an .avi; vid+auds setting, segmented to 8000 frames
  - \* LunarScan, used to locate impact flash candidates in an .avi
  - \* VirtualDub, used for making flash and stellar calibration video clips
  - \* Virtual Moon Atlas, used to locate the position of the flash on the moon

