

### 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 compatible with LunarScan
- \* 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 (254mm) Newtonian
  - 2) 14" (355mm) f/8 Meade on an equatorial wedge with a 0.33x Optec focal reducer
  - 3) 14" (355mm) f/11 Celestron on Paramount MX with an Optec focal reducer spaced for 0.25x
  - 4) 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 adapter and baffle
- \* ASTROVID StellaCam-EX (Sony HAD/EX chip) or Watec Ultimate 902H2 1/2" CCD
- \* SONY Video Walkman (GV-D800 NTSC) or Canopus ADVC-110 used as a FireWire digitizer
- \* KIWI-OSD GPS time encoder or IOTA-VTI video time inserter
- \* Shortwave receiver for WWV time signal (if GPS is not available)
- \* 2GHz Intel P4 with 1GB RAM, 480GB 7200rpm SATA hard drive, and FireWire card
- \* Software
  - \* Windows XP or Windows 7
  - \* WinDV, used for recording an .avi, vid+auds setting
  - \* LunarScan, used to locate impact flash candidates in an .avi
  - \* VirtualDub, used for making flash and stellar calibration video clips
  - \* Limovie, used for video photometry
  - \* Virtual Moon Atlas, used to locate the position of the flash on the moon

