Dobson telescope howto
Sat, 14 September 2024, 19-23oo at Holzmarkt

General Important Note: always keep with two feet of the dobson's socket on the transport dolly.

Properties:
1200mm focal lenth
250mm tube opening

Function of telescope
* Collects light
* Focuses on one point
* Eyepiece focuses collected light into human eye
* Different eye pieces -> different magnification

Handling the telescope
* Take cap off of tubus
* Always put cover on eye pieces when not in use
* Dust creates scratches -> Always clean with air

Standard eye pieces
* 30mm (focal length)
* 40mm

Focal length of eye piece
=> Impacts on zoom

Eye piece = "magnifying glass"
Zoom = focal lenth / eyepiece focal lentgh
Example: 1200mm/30mm = 40 (zoom factor)
Example: 1200mm/40mm ~= 30

Implication: smaller focal lengths (eye piece) result in better magnification.

Other parts
* Viewfinder (sucher)

Install viewfinder
* Big plastic mount on tubus
* Loose screws
* Put in
* Tighten screws
* Put into socket/mount
* Switch on

* Adjust on larger object (moon, ...)
* Don't forget to switch off at end of the night (battery)!

Adjusting viewfinder
* Find moon
* Center it
* Then adjust view finder with the two screws on the lower back

Apparent field of view -> human eye has 60°-75° (?)
Each eyepiece has its own apparent field of view. Larger is better.

Use eye piece
Put eye piece in:
* Loosen screw, just a turn
* There are two screws for two sizes of eye pieces
* Take ocular cover off (that tube at the side)
* Insert eye piece
* Fix screw
* Take off eye piece cover

Remember to keep all covers in one place!
Otherwise you won't find them back

Barlow lense
• additional lense at eye piece
• additional magnification (3x, 5x, ...)
• but: image is darker

Rotate Dobson
To rotate touch anywhere
Except eye piece
And except "spider" inside the torus for the second mirror

Move telescope
* grab it tightly on both axis' ends
* Take out of mount
* A second person moves mount
* Re-mount at destination location
* Don't mix up sides

Note: flat axis side shows sidewards for stability, not upwards.

Focus object in view
Use silver focus knob to focus
Use black knob for fine tuning

Align mirror (advanced adjustment)
* 2x3 screws on base of Dobson
* Mirror is attached on the black screws
* White screws tighten the position
* Helper tool: cheshire eyepiece