Building your own Observatory

Theo Ramakers
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In the humid summer months you might be impacted by dew and in the winter months, that could be in the dark

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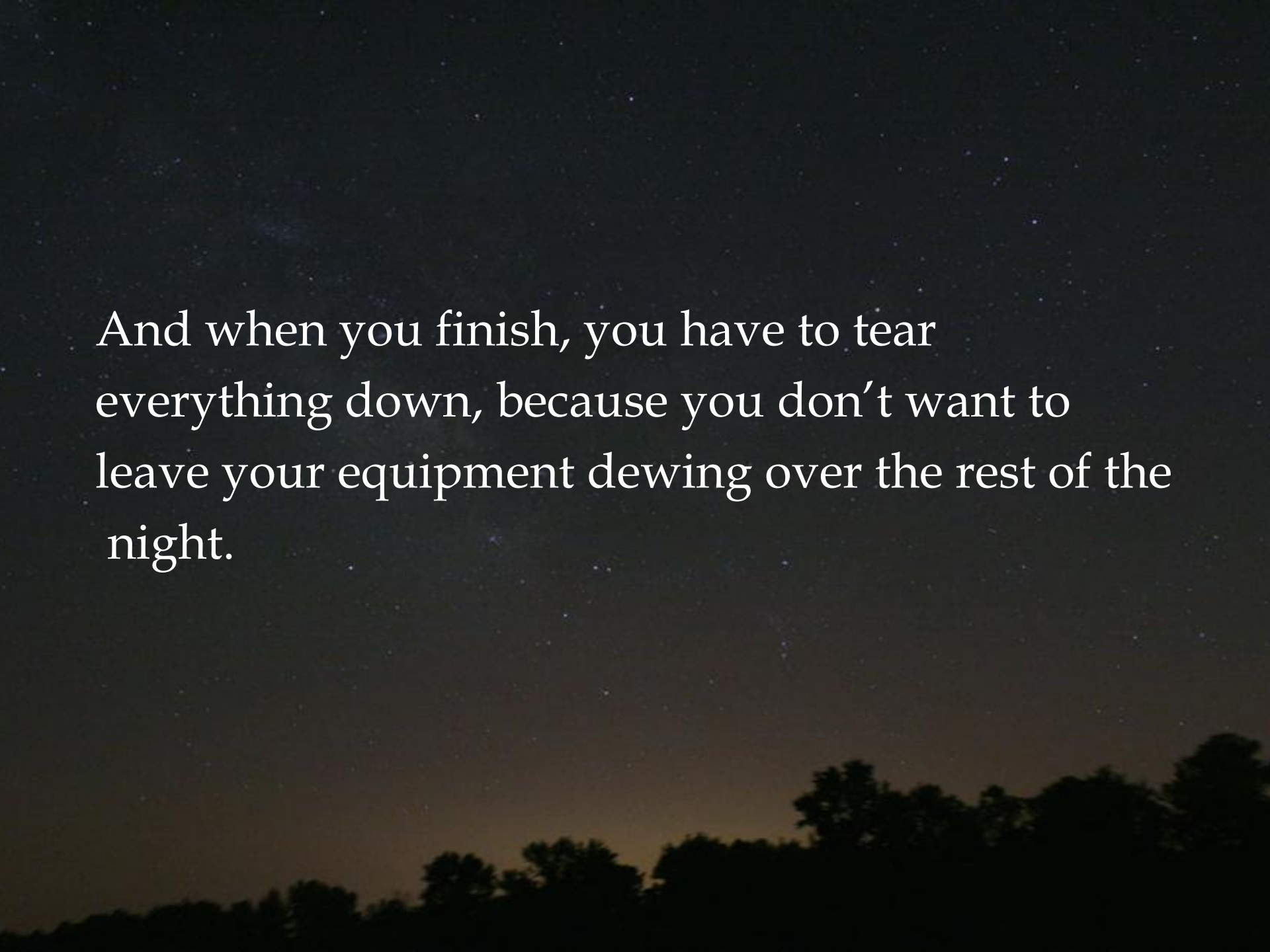
So you run for the “hair drier” or install the dew zapper.


And when you finish, you have to tear everything down, because you don’t want to leave your equipment dewing over the rest of the night.

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Jon Wood and I did this at the Observing Field and I also did it at home in my front yard.


At home I declared the three pavers:


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(Lots of laughs of my “buddies”)

Bottom line:

Getting ready and taking down….

A lot of lost time!!!!

To get around the setup and make things real easy and to protect your equipment from the harsh conditions outside:

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- Self sustained power

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- Allows for additional vent space and insulation sheets
  - To avoid heat buildup because of tin roof

Jim Sobeleski helped me find shops who constructed my pier

First the pier was set

- 1.5 ^{3} footing was dug.
- Metal anchors were set in the concrete footing
- Pier would be bolted to footing

If I ever move, remove the pier and level with dirt

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Marked profile for the rafters on the drive way

Now it was time for the concrete corner blocks to be set in concrete

And for the floor joists and frame to be build

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(My secret compartment as Marie called it)

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This also gave room to mount the power inverter to run 110V for my laptop etc.

Next the wall segments were transported to the site, setup, checked for square and bolted together with two bolts on each side.

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The siding was cut and nailed to the frame (not the floor joists) so it stayed square and added stability

I used garage door guide rails attached to a 2x4 on top of the top plate of the side wall for the wheels of the track to run in.

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Two beams of double 2x4s were used as a base for the roof. Wheel brackets were attached prior to moving in place. (2x4s nailed together with concave sides together to avoid warp)

After the roof base and front and back rafters were assembled on top of the building, the other rafters were nailed in place.

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The vent areas and the position of the insulation can be seen pretty good in this picture.

The setting of the door and window were next

And the attachment of the roof roll off extension in the back of the building.

The construction of the roll off part of the observatory

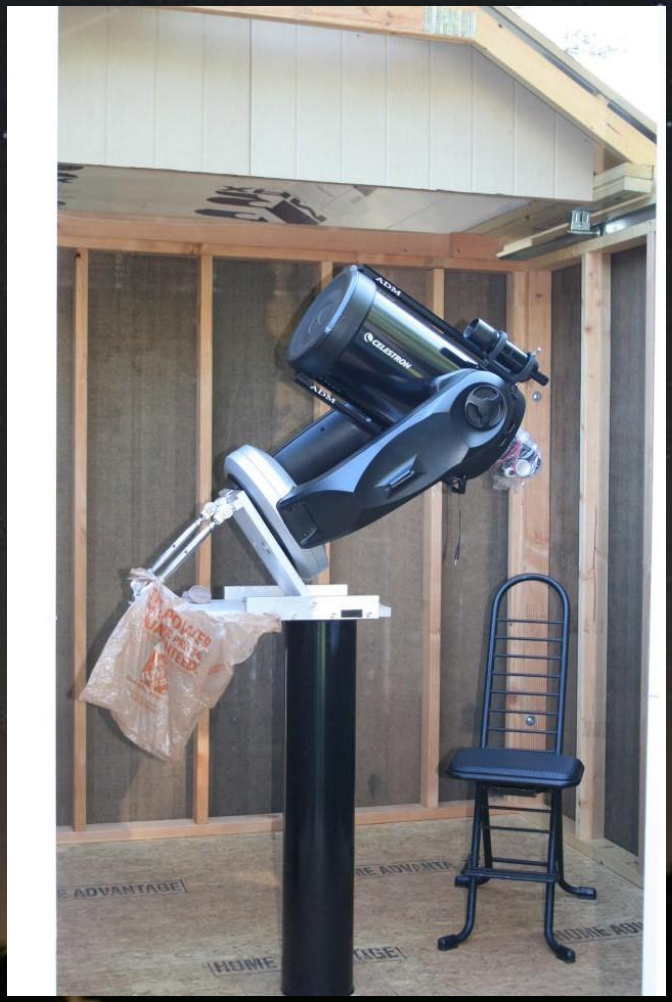
And the attachment of the roof roll off extension in the back of the building.

Here the track runs on a beam assembled from a 2x4 nailed to a 2x6. the track lays on top of the 2x4 and is screwed at the side of the 2x6

- Now it was time to see how the roof rolled.

Time for trim and base coat painting

And installation
Of the Scope

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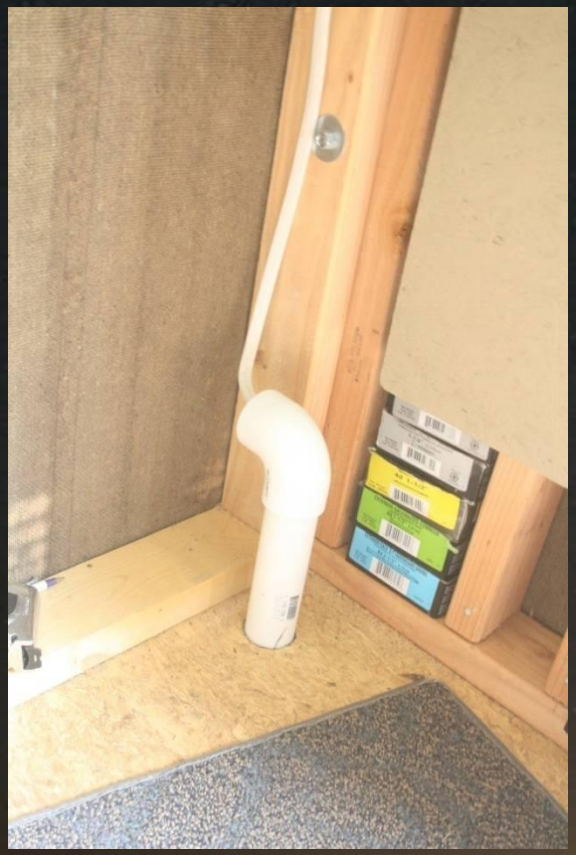
CELESTRON
ADM


And it was time for the
“Open House”

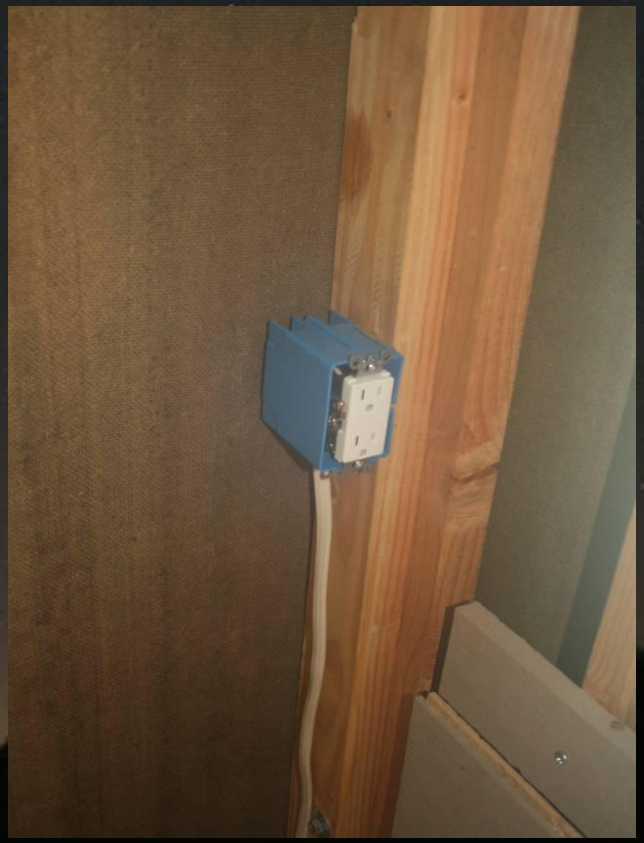
Some details:
The garage door vinyl seal slides against the vinyl sofit when
The roof opens. Critter proof !!

Some details:
A cut off broom serves as a critter barrier in the track channels
Also mounting details of the roof track.

Some details:
Another layer of R3 insulation provides the lower closure of the air gap for roof ventilation. Upper vent in back of Observatory



Power under the floor in plastic pipes



The next phase will install solar panels to charge the 125 amp hour battery during the day

Thanks for your interest and….

Clear Skies!!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