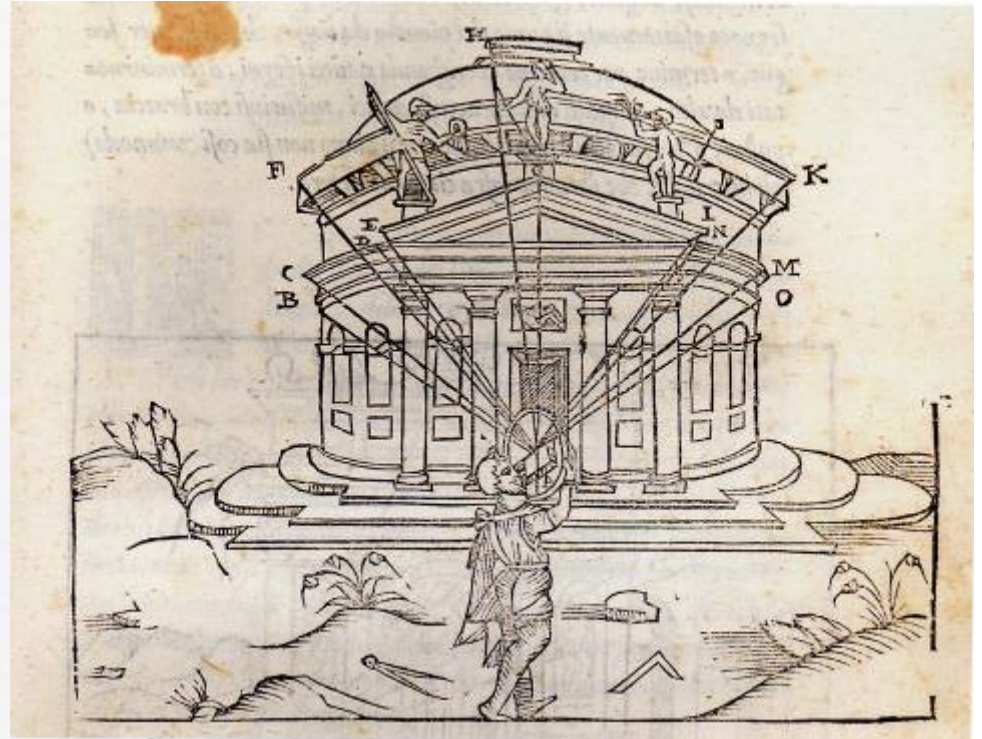


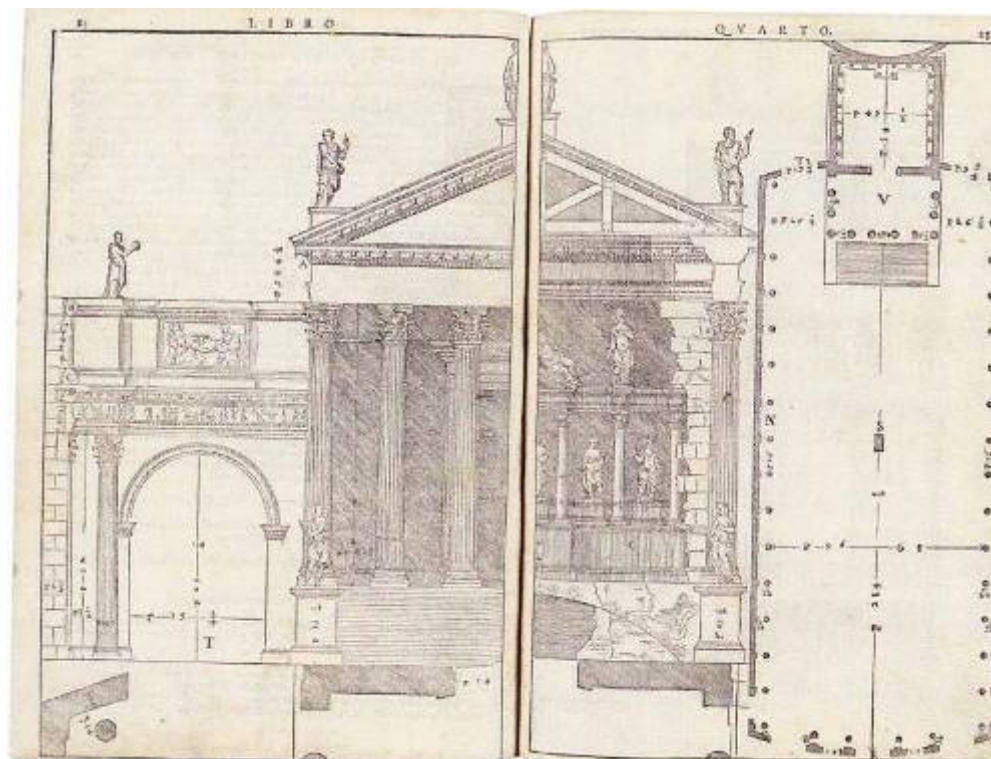
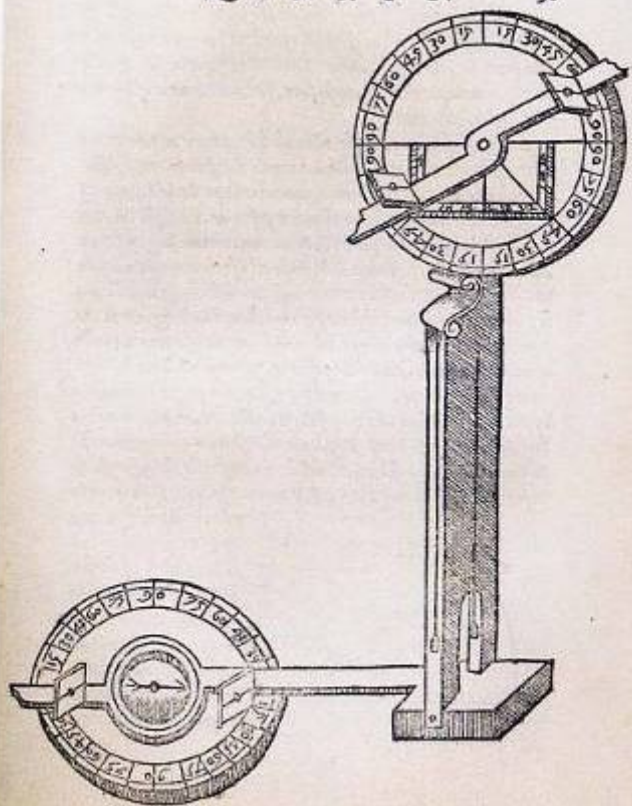


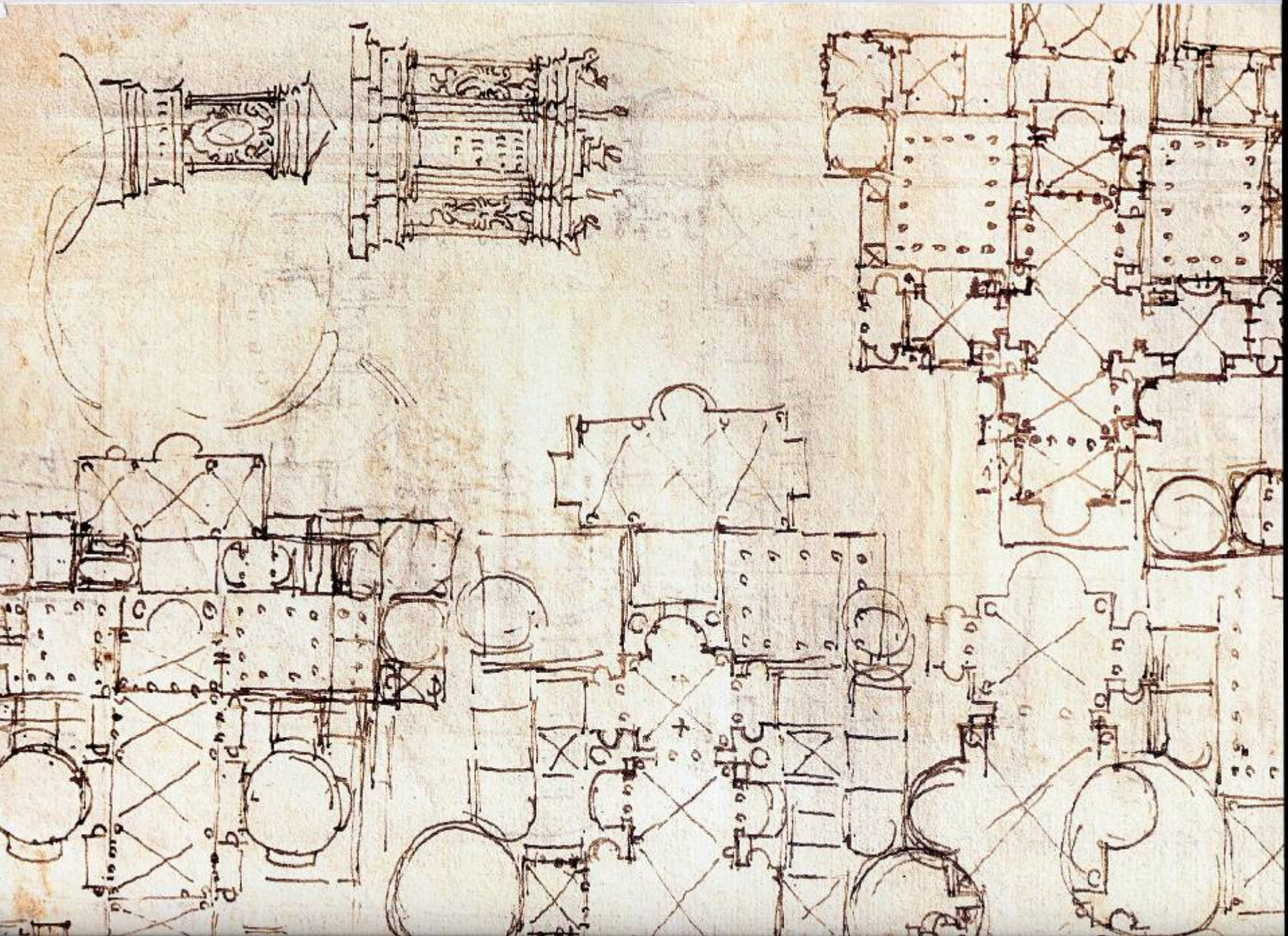
Survey Equipment

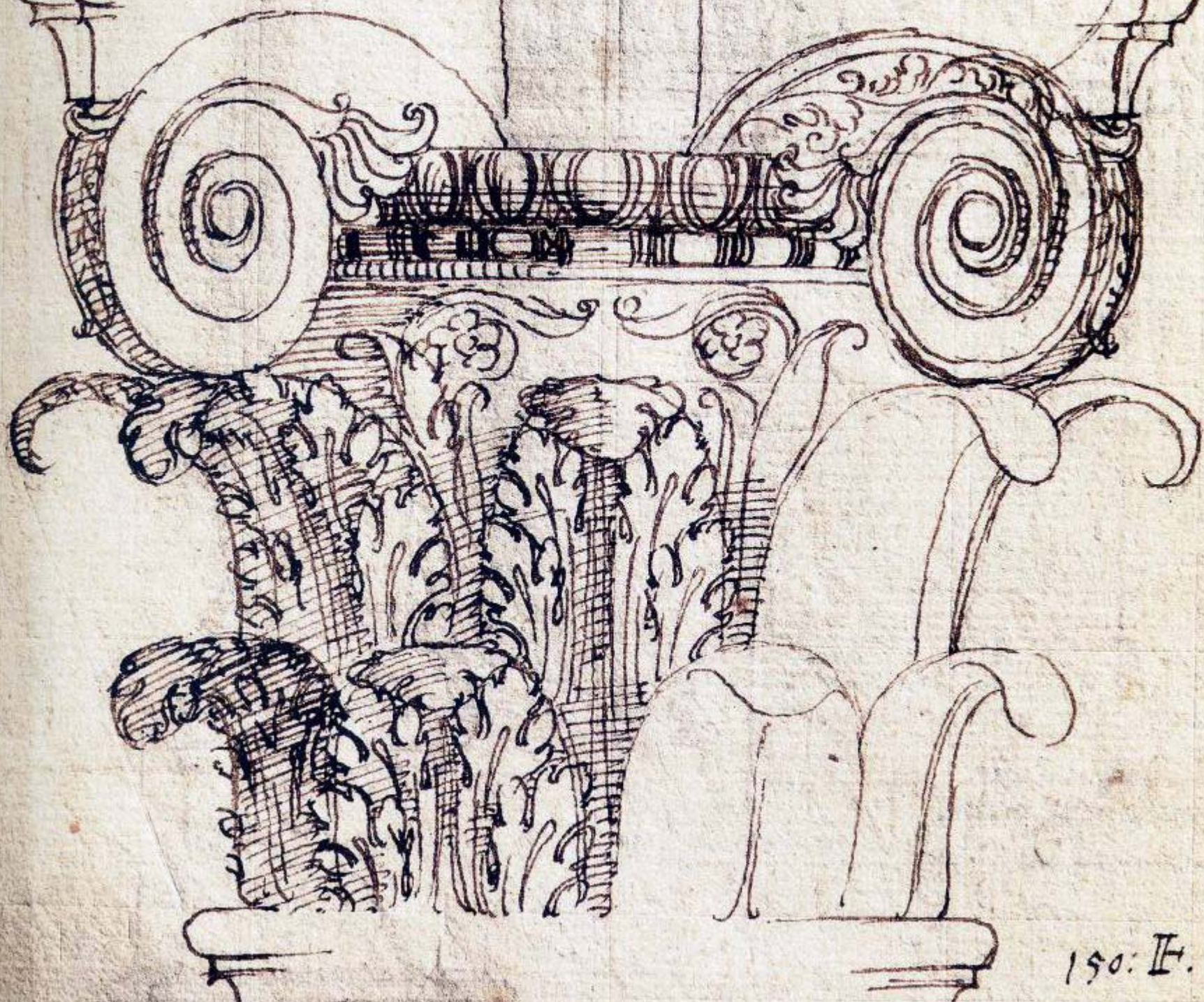
Quick Set up Guide

Early Theodolite



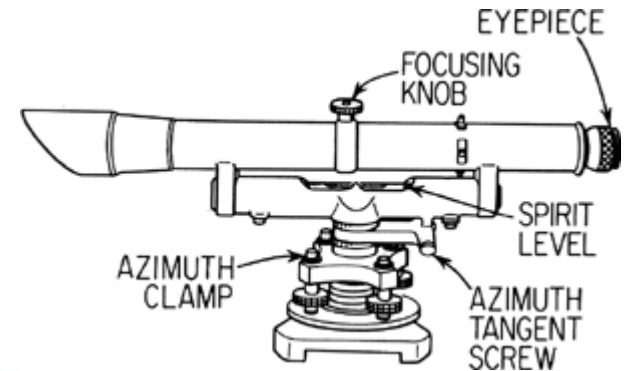






Other equipment

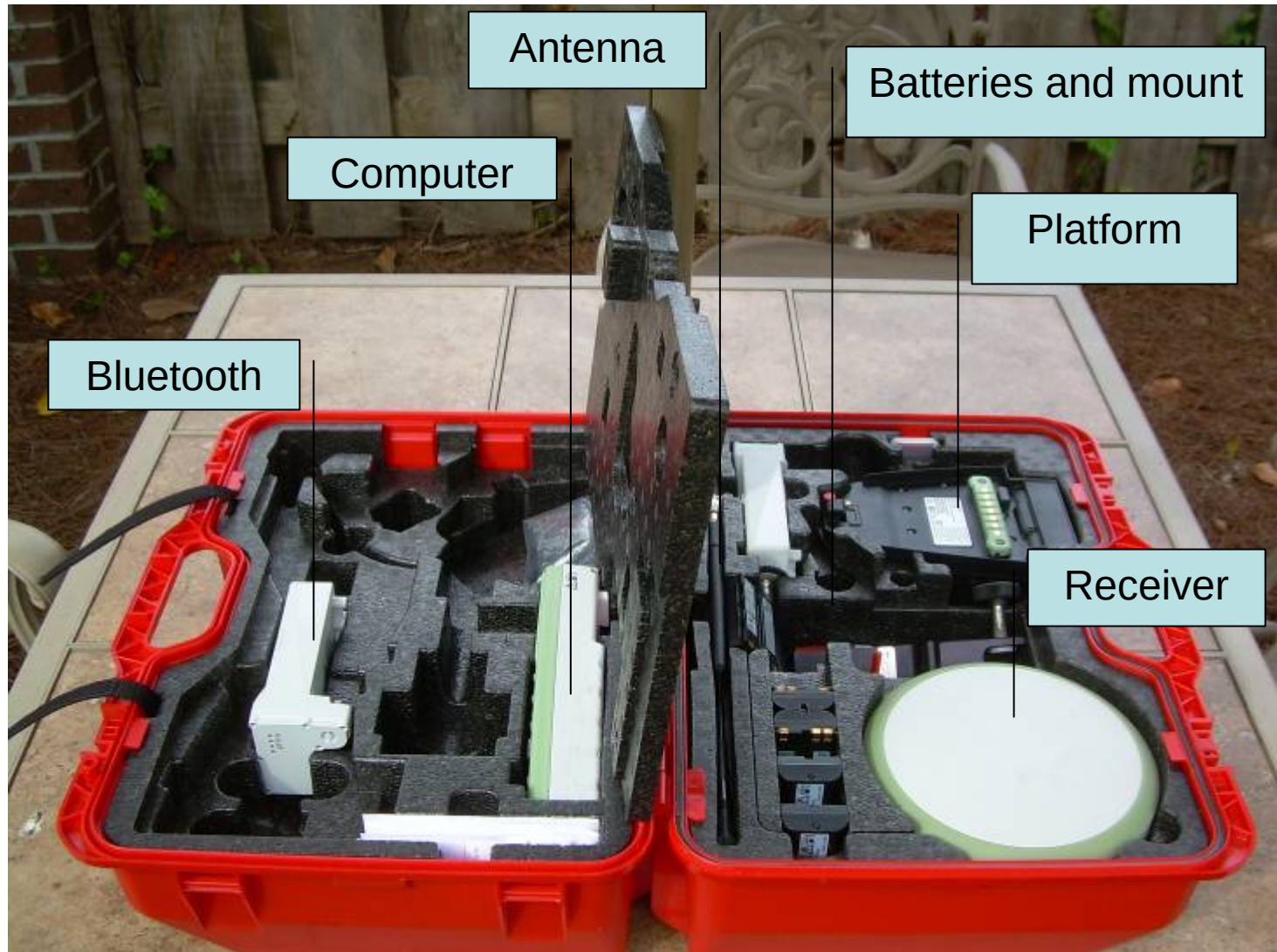
- Dumpy level
- GPS device
- Plane Table
- Theodolite



Leica GPS Smart Rover



Assembly



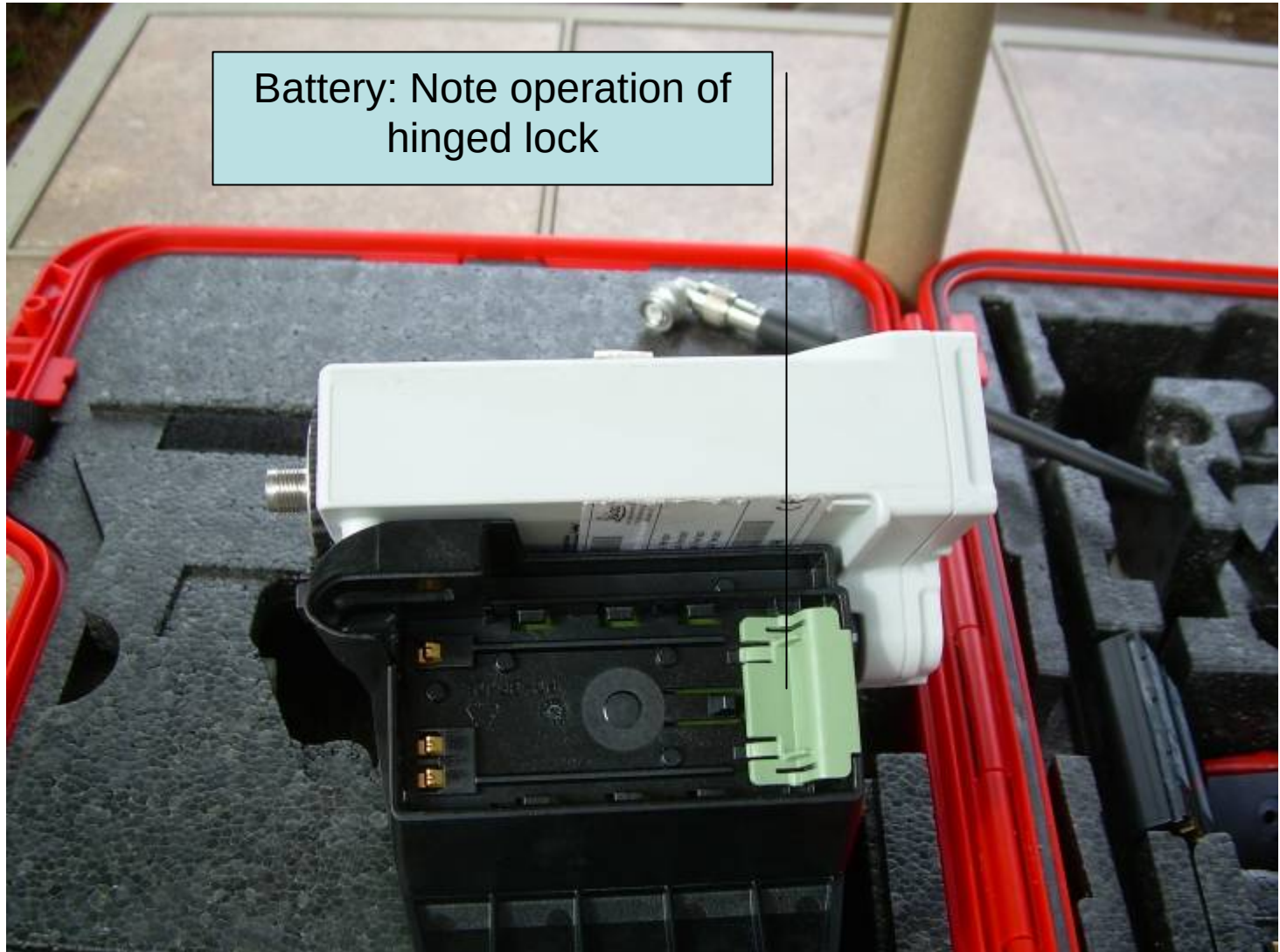
Attach platform to computer



Attach Bluetooth to platform



Battery goes here for Bluetooth



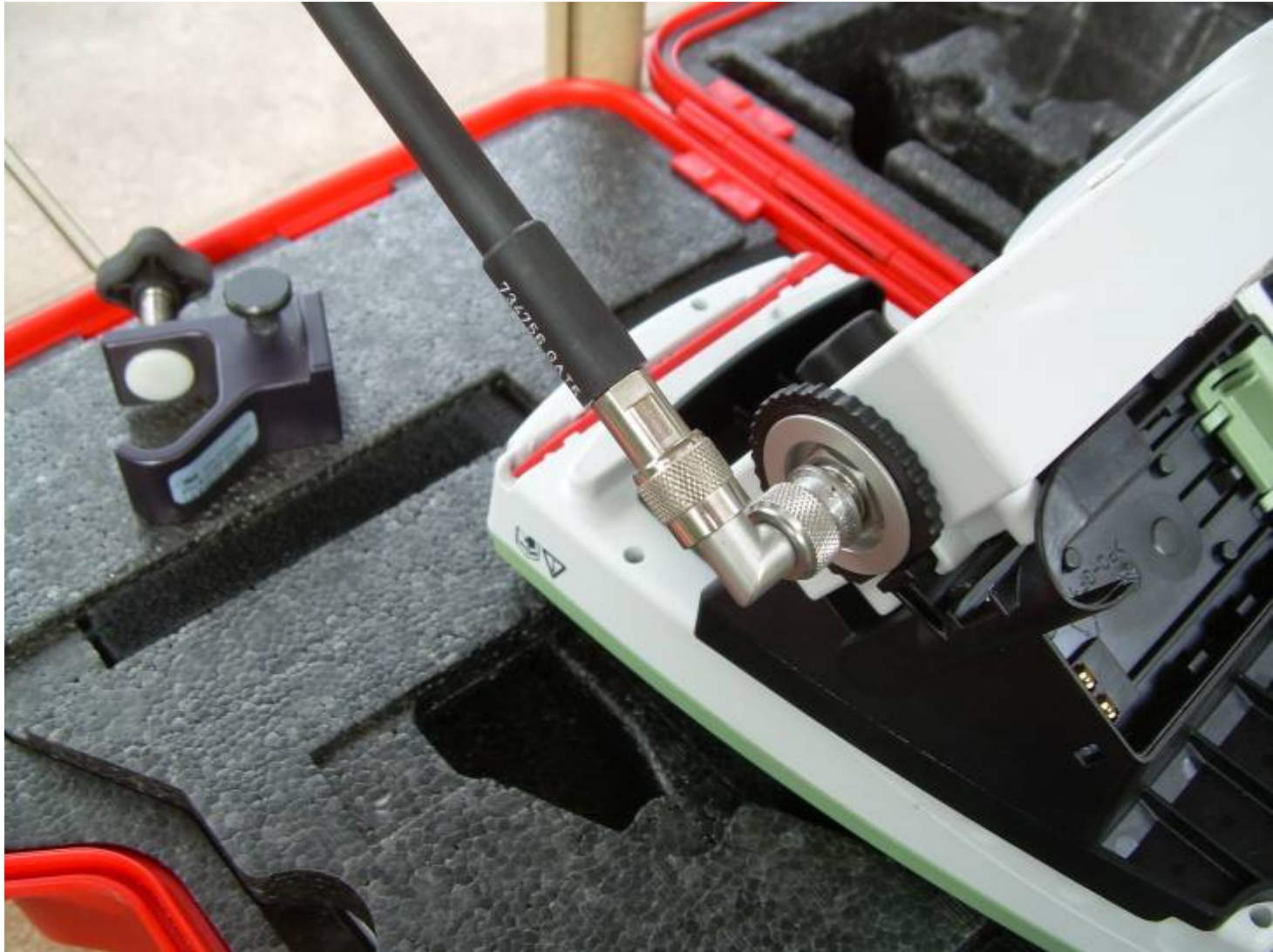
Battery in place



Attach mount



Attach antenna



- Get the pole together. Note male end on upper end of pole. Base on bottom of assembly.



Receiver set up- turn on and screw
onto pole securely, not to
overtighten



Start up process

- Turn on with program button. Note that you are looking for the second Windows CE screen)
- Hit F4 to accept current job
- Hit “1” for survey process, then enter
- Accept job default and indicate “continue” whenever there is a message about memory
- “Shift” then F3 to record observations – Note the small circle on the top which gets even smaller to indicate everything is communicating

Recording

- Write down the info – Northerly, Easterly and elevation (note you can toggle from decimal to degrees and minutes)
- Hit esc to get system error (usually 1 cm)
- Move equipment carefully to get at least two places that can become benchmarks for survey later. You need line of sight to each BM and to common points on the building/site.

Turning it off

- Hit “esc” twice to get to the main screen
- Hit both the User and Program keys simultaneously
- Take out the battery on the mounting platform
- Make sure you are very careful with the receiver, turning it off (the light turns red, then you release the on-off button)

Putting it away

- There are a couple of tricks to handling the equipment
 - The battery coming out of the platform requires study
 - The computer is hinged from the bottom and requires pushing it straight up before rotating it
 - Pay attention to the first slide which shows everything stowed and where stuff goes
 - Lock it up and secure it

Notes

- Try to keep the receiver fairly vertical to keep it from losing contact with base
- If the computer freezes, you can always take the battery out and put it back in again to reboot.

Sokkia Total Station the box Quick Field Guide



The bag











Initial set up

- Please refer to the supplement handout for details and notes not covered here
- Set up machine per illustrations and discussions
- Set up rod with offset to “0” and put tip on it (note the tip will have to be removed to fit it back in the bag)
- Measure the height of the rod
- Set up for one bench mark, lay in stake and verify alignment
- Lay in second benchmark

Notes about benchmarks

- Verify that you can see all the points on the building from these two BM's. if not, you will need additional BM
- Get GPS data including elevations on the two main benchmarks

Notes about operation

- Lock the ocular first, then fine tune the location
- Be wary of laser and shining in your partners eyes

Setting up the equipment & Getting Started

- Turn the machine on, make sure it is set to reflector mode (as is appropriate)
- Line up to other BM with ocular
- Set H.ANG to “0” (hit function key to see this function, then “edit”)
- Enter angle at “0” (note you will need to toggle the func to get the number “0”)
- Say OK
- Get distance and angle to other BM (use func key to “distance”, then press (Note laser comes on at this point, be aware!))
- Record all info

Measuring distances and angles

- Relocate rod to each point/maintain plumb,
- Rotate to the various points and center on prism on top of rod,
- Record H.ANG, V.ANG, and distance to each point

Setting up over second benchmark

- You will need to practice this one – sighting down to the nail and adjusting the location and resetting plumb to get as close as possible
- Sight back to first benchmark and rezero – set that angle to “0”.
- Make sure you sight on several common points that you also sighted from the first BM to verify double check measurements.
- Proceed as before.

Packing up

- Make sure you unlock the transit before you transport it.
- Everything goes back into the container that you get it from
- Avoid getting it wet
- Avoid knocks and drops

General Notes

- Keep good notes
- Keep good notes
- Keep good notes