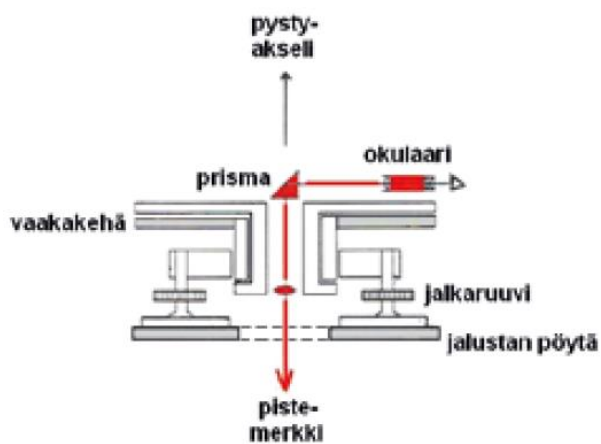


Setting up on a point

April 24, 2019

1. Equipment

- (a) Tripod
- (b) Forced-centring device
 - i. bull's-eye level
 - ii. latch
 - iii. telescope of optical plummet (eyepiece)
 - iv. footscrews
 - v. levelling plate



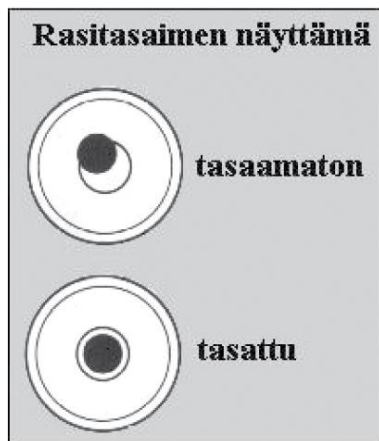
2. Setting up the tripod

- (a) Set up over the point judging by eye
- (b) Drop a pebble from the midpoint of the tripod table onto the mark

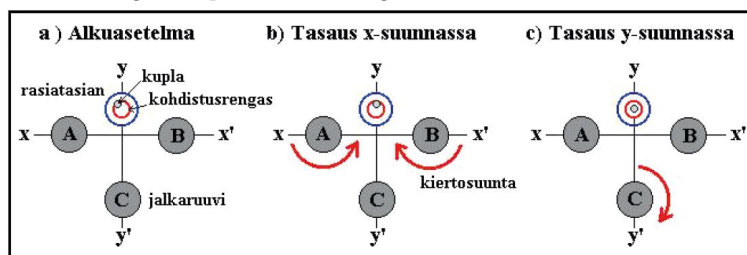
- (c) Mount the forced-centring device on top of the tripod table.
 - i. Turn the footscrews to mid position (all three of them)
- (d) Kick one of the legs of the tripod into the ground and grab the other two with your hands
- (e) Steer, while looking through the optical plummet's telescope, the crosshairs to the centre of the mark (help yourself by putting your foot next to the mark)
- (f) Judge by eye if the forced-centring device is level
- (g) Kick the remaining two legs into the ground.

3. Levelling the forced-centring device

- (a) Turn the footscrews while looking through the optical plummet's telescope to put the crosshairs on the centre of the mark
- (b) A crude levelling is achieved using the tripod's legs (at most two) to get the bull's-eye bubble in the middle



- (c) Check the crosshair placement on the mark through the telescope of the optical plummet
 - i. *Shift*, if necessary, the whole forced-centring device after (slightly) loosening the big attachment screw and sliding it in a *parallel* motion to precisely the right location (and re-tighten screw!)
- (d) Fine tuning, i.e., precise levelling, with the footscrews:



- (e) Check the bubble of the bull's-eye level and the positioning on the mark
- (f) While measuring, always *re-check* now and then! the instrument may have moved due to accidentally kicking the legs, thermal expansion, etc.