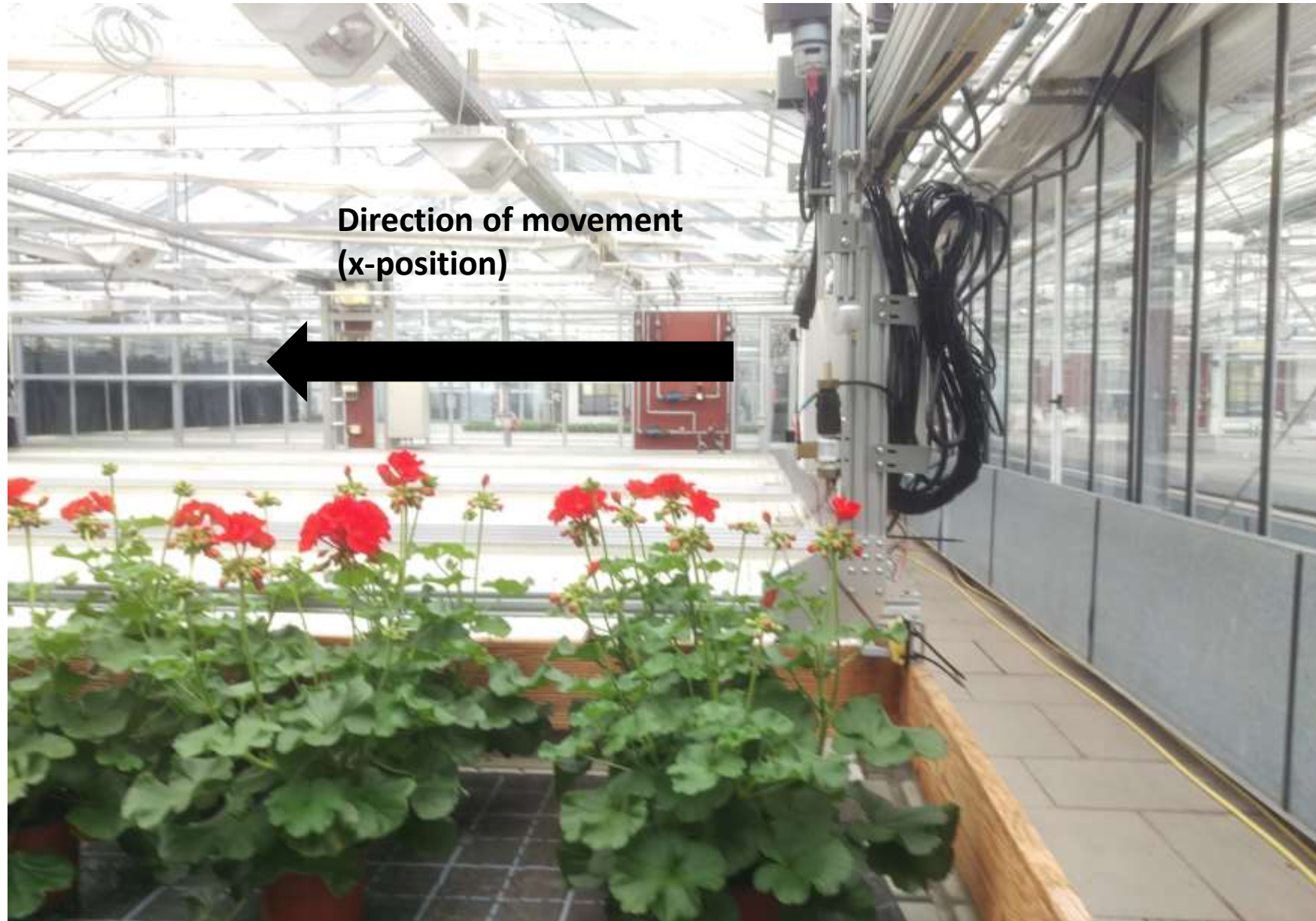


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Stand for plant height measurements on a larger area

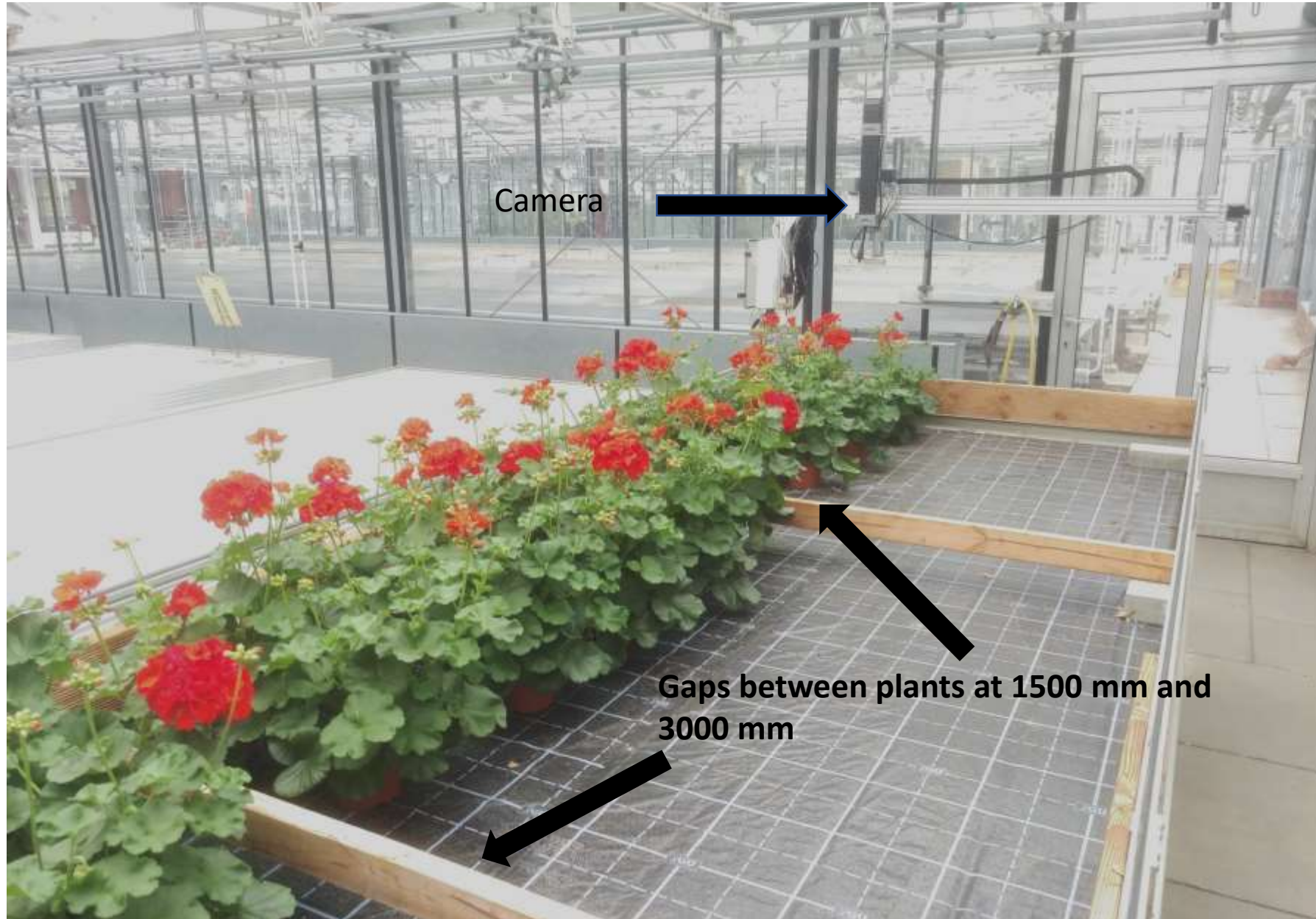


Stand for plant height measurements on a larger area

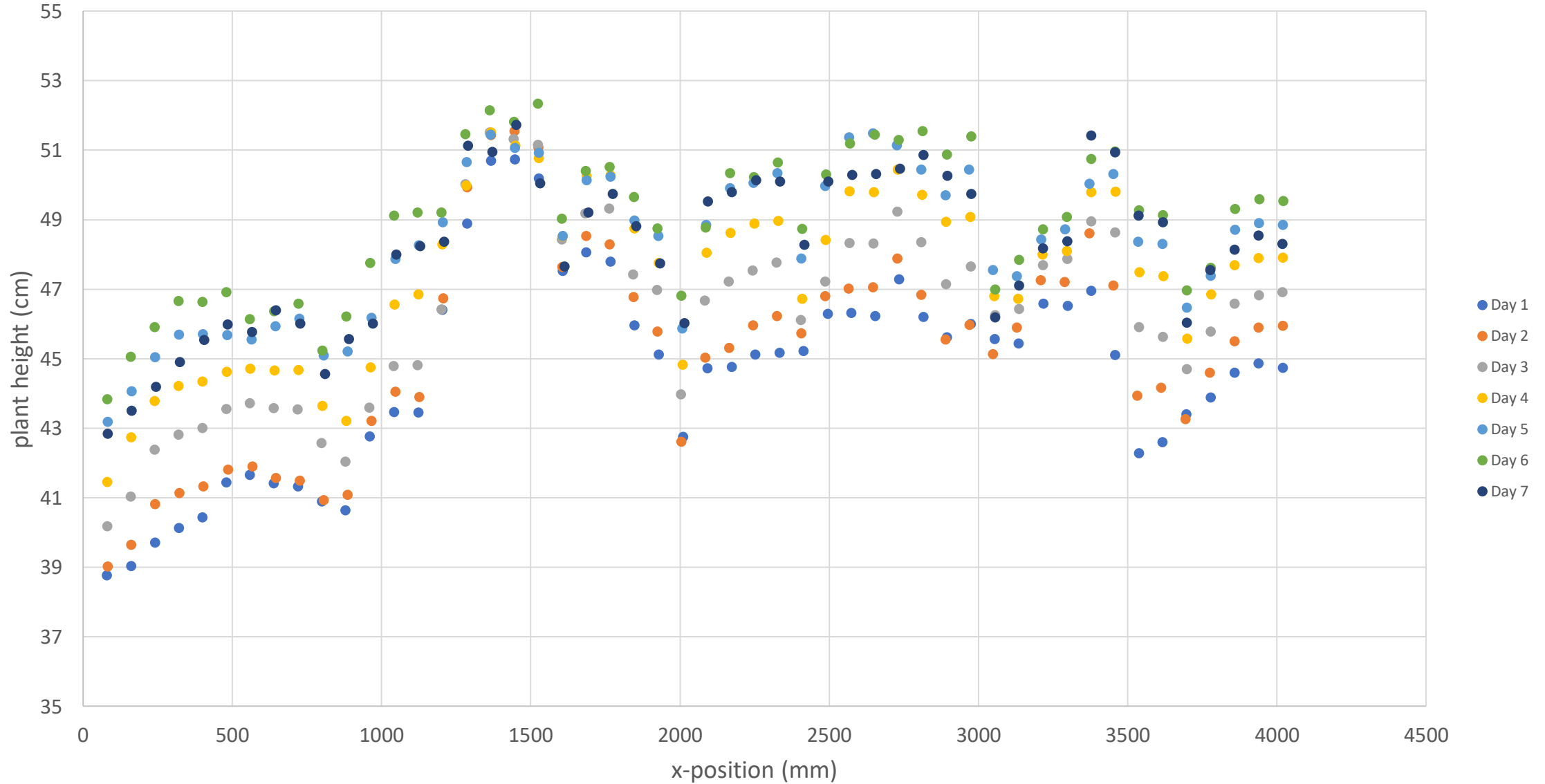




# Stand for plant height measurements on a larger area

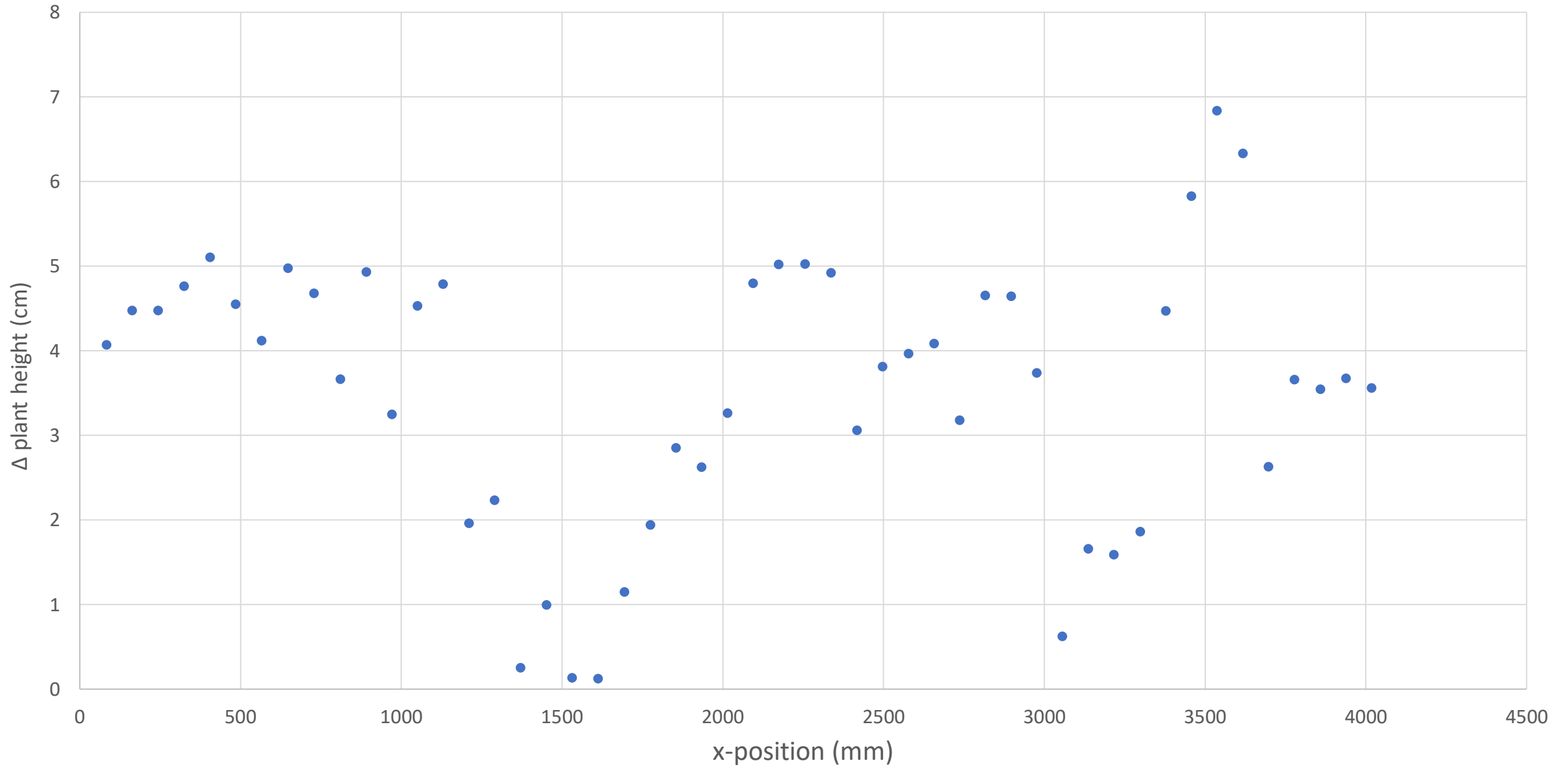


# Stand for plant height measurements on a larger area



Height measurement on *Pelargonium* plants over 7 days. Height corresponds to the average of the highest 10% of the plant at a given x position

Stand for plant height measurements on a larger area



Height difference of Pelargonium plants between day 1 and day 7 at given x position. Gaps between the plants at 1500 mm and 3000 mm

milestones reached

- independent operation through end stop switches
- automatic calculation of the speed and determination of the position in the greenhouse
- precise height measurement with spatial resolution
- online calibration and compensation of motion blur and tilted camera positions
- the system can be attached to any watering trolley
- WiFi access to elevation data

future milestones

- use in practice (Silze and Heuger)
- additional cameras for greater coverage of the crop in the y direction
- motorized frame for use on tables
- (implementation on Linux computers (Raspberry Pi))