World's First

7

VR-GEO

Introduction

How to conduct survey training during the post-pandemic phase? Equipment availability has been a headache to campus as always. Meanwhile, fieldwork is somehow subject to weather, environment, and time. The practical training for senior graders is always a big challenge in college survey teaching, as some complex environments are hard to observe, reproduce, and deal with, for example, mountains, dams, mining sites, tunnels, etc. Therefore, field demonstration in complex terrains would be not that realistic, as it inevitably comes with high cost, high loss, and high risk in practice, like unexpected outdoor hazards (eg. electrocution, sunstroke, snake bite) may be a time bomb indeed.


On the other hand, without relevant routine assignments and checkpoint tests, it's not easy for teachers to evaluate whether the students have mastered the operational skills and accomplished the goal. More fun is expected in teaching activities, yet nothing but books and instruments can be relied on in reality. Paperwork is indeed less instructive and impressive compared to the situational approaches. Dedicated students would like to stay connected with modern technologies and social needs.

This was how the World's First VR-Geo application came into the geospatial society in terms of modern survey training.

Maybe you have no idea of what it is and how it works yet, it's indeed impacting there. Usually, only those who have a sound vision and open mind will see a bigger picture and take the fruit first. When most of the markets are not aware of this new revolution, mainland China has become the pioneer that integrates VR technology into teaching, training, exams as well as survey skill contests. Meanwhile, the Ministry of Education here is now accelerating the 1+X Program for survey skills certification. To look further, more and more overseas parties have shown great interest in this amazing invention because it vividly talks about unique instead of competitive.
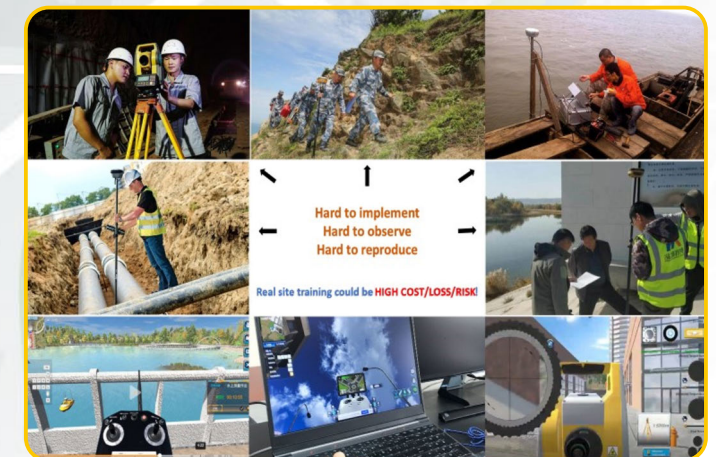
And now, VR-Geo consists of 2 categories, VR Combos and VR Programs.

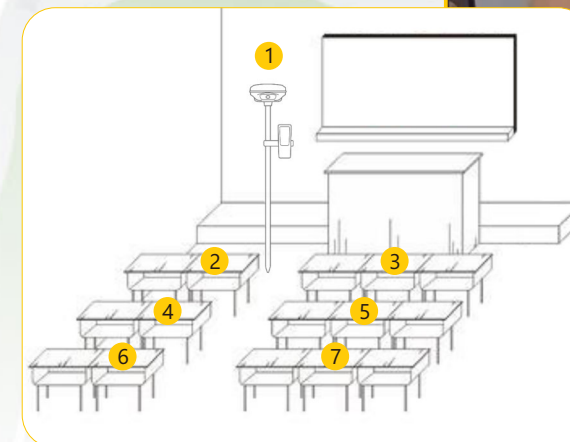# Total Station N1 VR Combo   Best for In-class Teaching

- Real equipment Total Station N1, supplied with one standard package
- State-of-the-art real equipment smart-linked with 3D virtual environment
- Immersive user experience brought by combo survey training program
- Ideal for in-class teaching (for lecturers) and practice (for students)
- Typically 5-7 sets for one class, 1 (must have) at teaching platform, 4-6 among students
- Additional simulated survey training program (Total Station N1) for off-school practice

Virtual survey training program **+** equipment used in **R**eality = **VR Combo**
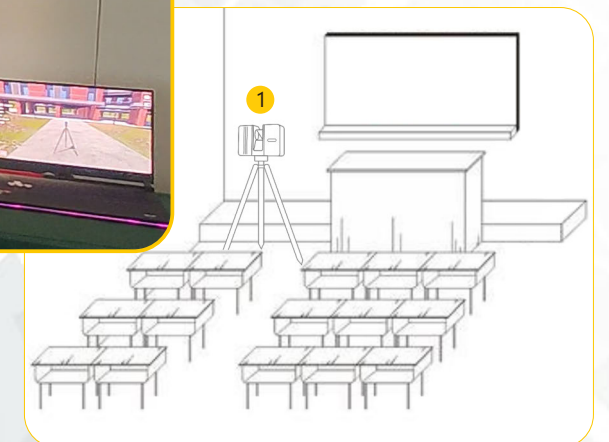
GNSS RTK G2 VR Combo   Best for In-class Teaching

- Real equipment GNSS RTK G2, supplied with one standard package
- State-of-the-art real equipment smart-linked with 3D virtual environment
- Immersive user experience brought by combo survey training program
- Ideal for in-class teaching (for lecturers) and indoor practice (for students)
- Typically 5-7 sets for one class, 1 (must have) at teaching platform, 4-6 among students
- Additional simulated survey training program (GNSS RTK G2) for off-school practice

## Laser Scanner SPL-500E VR Combo   Best for In-class Teaching

- Real equipment Laser Scanner SPL-500E, supplied with one standard package
- State-of-the-art real equipment smart-linked with 3D virtual environment
- Immersive user experience brought by combo survey training program
- Ideal for in-class teaching (for lecturers) and indoor practice (for students)
- Typically 1 set for one class
- Additional simulated survey training program (Laser Scanner SPL-1500) for off-school practice

Virtual survey training program **+** equipment used in **R**eality = **VR Combo**

Fly2Map Drone SF-600E VR Combo   Best for In-class Teaching

- Real equipment Fly2Map Drone SF-600E, supplied with one standard package
- State-of-the-art real equipment smart-linked with 3D virtual environment
- Immersive user experience brought by combo survey training program
- Ideal for in-class teaching (for lecturers) and indoor practice (for students)
- Typically 2-3 sets for one class, 1 (must have) at teaching platform, 1-2 among students
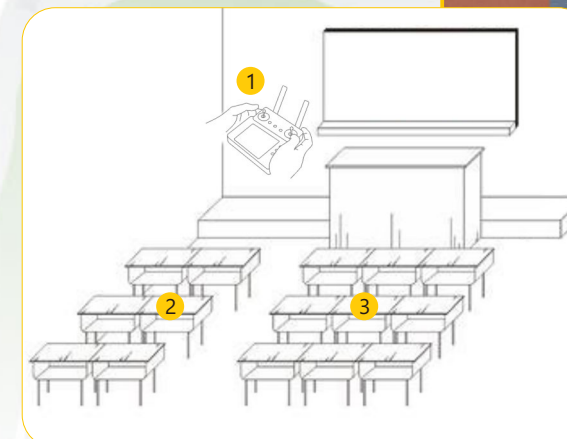
Digital Mapping Simulated Survey Training

- Designed for simulated survey planning and general execution workflow
- Various equipment (TS, RTK, etc.) to deploy upon survey missions
- All measured data (with genuine coordinates) possible to proceed with CAD mapping
- Scientific mission assessment by time control and finish quality
- Best for in-class teaching, off-school practice, and online survey contests even

Ordinary Leveling Survey Simulated Training

- Designed for typical leveling survey training (with auto level) before entering commercial society
- Fundamental knowledge to acquire even after class through repeated practice
- Benchmarks, turning points, height difference calculation, etc. as checkpoints
- All virtual-based staff readings to record in the fieldbook of VR program
- Learn-practice-quiz cycle as a perfect closure from compliance to competence

Total Station Survey Traverse Simulated Training

- Designed for typical total station survey traverse training before entering commercial society
- Fundamental knowledge to acquire even after class through repeated practice
- Line or path of travel, traverse point measurements, open/closed/compound traverse, etc. as checkpoints
- To establish accurate control of distance and direction (i.e. coordinates, elevation, bearings, etc.)
- Learn-practice-quiz cycle as a perfect closure from compliance to competence

Drone Phantom4RTK Simulated Training

- Designed for repeated practice of drone operation with no risk of crash
- Aircraft assembly, drone settings, flight planning, mission control, etc. as checkpoints
- All captured images ready for drone photogrammetry processing practice
- Easier to learn from A to Z and experience unexpected before risky physical attempts
- A new shortcut to transform UAV beginners into qualified pilots in batch

Note: yet some other programs of instrument simulator, survey methodology, overall survey practice are not mentioned here.

Sim-to Real Scenes. Sim-but-Real Experience.

World's First! A Breakthrough in Modern Survey Training

It's about Unique instead of Competitive.

All features = Gimmicks + Selling Points