

Buyer's Guide to Laser Scanners

MOBILE



**GEOSLAM
ZEB HORIZON**



**LEICA
BLK2GO**



**NAVVIS
VLX**

COLOR
CAPTURE

X

✓

✓

RANGE

100
meters

80
meters

100
meters

ACCURACY

±2
centimeters

±2
centimeters

±1
centimeters

ACQUISITION
RATE

30,000
points/sec

420,000
points/sec

600,000
points/sec

WEIGHT

1.3
kilogram

0.78
kilogram

9.3
kilogram

MSLP

\$35,000

\$65,000

\$80,000

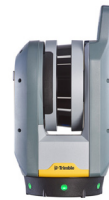
DIFFICULTY
☆☆☆☆☆

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TERRESTRIAL



**TRIMBLE
X7**



**LEICA
RTC360**



**LEICA
P40**

✓

✓

✓

80
meters

130
meters

270
meters

±0.5
centimeters

±0.5
centimeters

±0.2
centimeters

1,000,000
points/sec

2,000,000
points/sec

1,000,000
points/sec

5.8
kilogram

5.35
kilogram

12.25
kilogram

\$35,000

\$67,000

\$120,000

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Some key differences between the two scanner types:

MOBILE (SLAM) SCANNERS

Mobility

Mobile scanners are able to capture data while you walk, no tripod needed

Speed & Agility

Can fit into tight spaces (scan behind equipment or columns). Scans about 10x as quickly as a stationary scanner

Accuracy

Most are accurate to $\pm 2\text{cm}$ on a point-by-point basis. Using Avvir you can get significantly more accurate for each element because you can oversample points and use their average to get a fine-grain understanding of where an element is in reality

Cost

The cost tends to be a bit cheaper than terrestrial scanners but varies from manufacturer to manufacturer

Use Case

Best used in situations where there is visual complexity in the environment, and where accuracy tighter than a centimeter is not critical

TERRESTRIAL (STATIC) SCANNER

Accuracy

Stationary scans are in millimeter accuracy when used properly

Speed

Speed lacks compared to mobile scanners. An average scan is anywhere from 6-8 minutes

Use Case

Best used for scanning where accuracy within millimeters is required