

A \$30 Laser Distance Meter, Version 1.0

By **R. G. Sparber**

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I have bought many products from Monoprice.com. At first I was suspicious because the prices are significantly lower than other vendors. Yet the quality is mostly there.



Recently I took a chance on a \$30 laser measuring tool² which claimed to be accurate to $\pm 1/16$ of an inch (1.5 mm): the TackLife S2 Laser Distance Meter³. The display has a minimum increment equal to this claim of accuracy. It can measure distance, area, perimeter, volume, and, indirectly, height. Below 2 inches, I get an error message. The claimed maximum distance is 130 feet but I have no way to test that.

Conclusion

By using 1-2-3 blocks and then my steel tape measure, I found agreement within the claimed accuracy. I did not follow the standard metrology procedure because I was just looking for out of spec readings. Didn't find any. I did use the continuous reading mode and over about 20 readings did not see variation greater than $\pm 1/16$ of an inch.

Background

I have to admit that, for me, this meter is a solution looking for a problem. I always thought these laser distance meters⁴ were cool but not for \$60. When I saw this unit for \$20, my normal "adult" defenses went down.

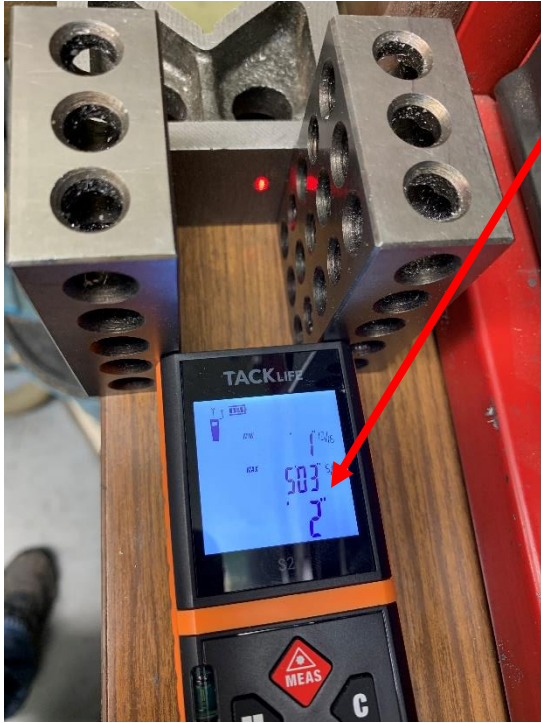
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² Actually, I paid \$20 but the price has gone up over the last week.

³ https://www.monoprice.com/product?p_id=37972

⁴ Bosch sells a similar meter for \$60. <https://www.homedepot.com/p/Bosch-BLAZE-PRO-165-ft-Laser-Measurer-GLM165-40/305566975>

Accuracy Evaluation



Using my 1-2-3 blocks, I set the distance from the front face of the meter to the base of a V block.

The bottom reading is the valid one. You can see that it says 2 inches.

I used this set up every inch until I reached 10 inches. All readings were within $\pm 1/16$ inch. Most were spot on.



I then switched to my steel ruler on the floor of my shop. Due to variations in the floor, I had to prop up the end of the meter to keep the laser pointer at the correct spot on my target.

Here you see the meter reading 1 foot 00 inches with the front of the meter aligned with the 1 foot mark on the steel tape.



I measured every foot until 8 feet. All readings were within spec.

I welcome your comments and questions.

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Rick Sparber

Rgsparber.ha@gmail.com

Rick.Sparber.org