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This past month has been a busy one here for us at Instrument Choice, which thankfully always seems to be the case. The majority of March I was in the USA visiting suppliers and attending a conference, I will share some photos on our [Facebook page](#) so stay tuned in the coming weeks for a snap shot of what I got up to.

This month we are showing off a product range that we have seen a growing interest in from our customers in the past couple of months. [Laser Distance meters](#) are something we have increased our focus on lately, recently expanding our range to include the wonderful [Leica Meters](#).

We received great feedback following [last month's experiment testing the fastest way to cool a beer](#), this month our scientists are putting the practicality of a [laser distance meter](#) to the test and facing off in a battle of speed, accuracy and possibly agility.

Remember; if you have any questions regarding tests you need to conduct or specific instrumentation please give us a call.

Until next month...

Tyson Grubb



Throw out your tape measure

Do you want to determine the number of square meters that you need to paint? Or do you need to calculate the area of a roof for solar panel installation? How about working out the height of a tree without needing to pull out a ladder or cherry picker?

Well, now there is no need to use a tape or ruler or even have a calculator to work out your results. It can all be done in the palm of your hand with one tiny instrument. What is this instrument you ask? "[A laser distance meter](#)".

You can use these devices to save you both time and hassle. Unlike tape measures, laser distance meters won't bend, sag or flex during measurement. With a tape you need to walk to and fro and you will generally require two people to obtain an accurate result. [Laser distance meters](#) offer a one handed easy solution with quick and accurate results. They work by sending out a pulse of laser at the target. The meter then calculates the time it takes for the reflection to return. The meter then uses a calculation using the speed of light to convert this to a distance.

Laser distance meters all operate on this principle however there are certain features and components that make them unique. For instance meters such as the Leica [X310](#), [D3aBT](#), [D510](#) and [D8](#) have tilt sensors to allow for indirect distance and height measurements. On the [D510](#) and [D8](#) this includes functions such as measuring the height of trees or height profile tracking of terrain and driveways. The [D510](#) and [D8](#) also include a colour display and point



Product of the month - [Disto D-510](#)

The new [Leica DISTO™ D510](#) stands for easy and effortless outdoor distance measurement. The unique combination of digital Pointfinder and 360° tilt sensor allows measurements which are not possible with conventional distance meters. In addition, with Bluetooth® Smart and attractive free apps, you are prepared for the future.

- Simple and precise targeting
- Pointfinder with 4x zoom
- Unlimited number of measuring options
- Efficient height profile measurement
- Quick sketching Bluetooth® Smart with iOS app
- Modern ergonomics
- Tough and easy to clean
- ISO Standard 16331-1



finder so that distances in an outdoor environment where lasers are difficult to see can still be taken. There have also been recent advancements in the [D3aBT](#), [D510](#) and [D8](#) which allow them to connect via Bluetooth to a range of devices such as tablets, smartphones and PC's. They can then be directly interfaced with Apps and third party software such as Autocad on site. This then allows the users to send the measurements directly to these programs for future use. We will cover what these fantastic little devices can do further in the experiment which follows.



Laser vs Tape Measure Experiment - The Showdown

This week in the experiment we're going to look at what you can (and can't) do with a laser distance meter. We've compiled a list of some of our most frequently asked questions and applications and using a [Leica DISTO D510](#) we are setting out to see what we can measure.

How high is the ceiling?

This is a nice and easy one. To measure the height of the ceiling you simply place the distance meter on the floor, point it at the ceiling and press the measure button. In my office the ceiling height was 2.667m.



Can you measure the floor area? How much carpet do you need?

To measure the area of a room you put the distance meter into area mode. In this mode the meter will calculate the area based on the length and breadth measurements it takes. To do this, you place the meter on one wall and measure the distance to the opposite wall. You then place it on the adjacent wall and measure the distance to the opposite wall. It will then automatically calculate the area. My office was 14.219m²



Does using a laser distance meter save time?

To do this I challenged my colleague Daniel to see who could measure the area of our lunch room the fastest. I got to use the [leica D510](#), Daniel was using a standard tape measure.

Daniel using a tape measure took 27 seconds

I won using the [D510](#), it took 9 seconds.



What is the pitch of our verandah?

To measure the slope of our verandah I measured the distance from the concrete at the bottom of the verandah to the underside of the verandah. I then measured the distance to another point on the underside of the verandah from the same point. The meter then calculated the slope of our verandah as 22°.



How tall is our flag pole?

To measure the height of a flagpole I set the laser distance meter up on the tripod. I then measured the distance to the bottom of the flag pole and the meter measured the tilt angle. I then pointed the meter to the top of the flag pole and pushed measure and the meter calculated the distance and the tilt and used that to calculate the height of our flag pole. Our flag pole is 7.658m tall.



How far away is that table through the window?

Unfortunately the laser distance meter cannot calculate the distance to things through windows. They also can't measure through walls.

Can I use my laser distance meter outdoors?

The Leica [D510](#) and [D8](#) can be used outdoors. They have a digital pointfinder that means you can locate the little red dot indoors and outdoors. The Leica [D210](#), [X310](#) and [D3a BT](#) don't have a camera viewfinder which means that they are limited to indoor use as it can be quite difficult to locate the little red dot in the middle of the day outdoors.



What do you need?

[CLICK HERE TO CONTACT US](#)

In less than 3 business hours you will have an answer from one of our experts.
There is more available than listed online!