

Shoot a target for GroupLab

GroupLab is a free, open-source tool that measures rifle groups from a photograph of the target. It needs real targets, shot by real people with real rifles, to prove it measures correctly. Five steps, about ten minutes of your time on top of the shooting.

1 Print the target at actual size

The targets are the last two pages of this file. Either one works: page 3 has a block for your load details, page 4 has an extra row of three sighter bulls. Print on Letter or A4 paper. In the print dialog choose **Actual size** or **100%**. Never choose Fit to page, Shrink oversized pages, or Scale to fit: a target printed 3 percent small measures 3 percent wrong.

Then check it with a ruler. Measure between the centres of the first and last bull in the top row. It must be **152.0 mm**, or **5.98 in**. If it is not, the scaling is wrong; fix it and print again.



2 Fill in the block at the bottom

The block on the sheet is the only information we need. Please fill in at least the **date**, the **distance** you shot at, and the **cartridge**. Bullet, powder, brass, primer and seating depth are useful but optional.

Write only inside the block. Pen marks anywhere else on the front of the sheet can be mistaken for bullet holes.

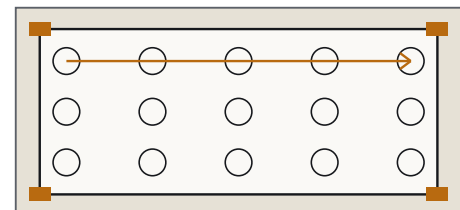
Date	Distance	Cartridge
Bullet	Powder	Brass
Primer	Seating	Notes

amber: please fill these three

3 Mount it flat and shoot it

Staple or tape the sheet flat onto cardboard at the four corners. Staples are quicker and hold better. A sheet that ripples or curls is the hardest case for the software, so flat is what we want.

One shot per bull, in number order. Any distance, any rifle, any number of bulls: nine shots is useful, twenty-five is better. If you fire at the wrong bull or pull a shot, write it in the Notes box.



four corners, staples or tape · shoot in number order

Photograph it, then send it

This is the part that matters most to us. Photographs of a target still hanging where it was shot are the hardest thing for the software to measure, and the hardest material for us to get.

4 Take four photographs before you take it down

Use your phone's **main camera at 1x**. Not the wide 0.5x lens, and not zoomed in. No flash. Stand so your own shadow is off the sheet. Tap the middle of the sheet to focus, and keep the whole sheet in frame with a little margin all round.

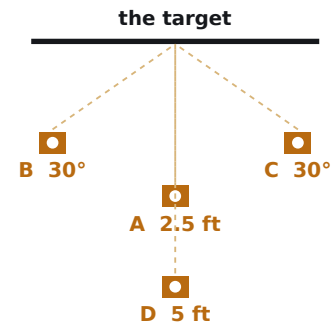
A: square on, about 2.5 feet away.

B: same distance, about 30 degrees to the left.

C: same distance, about 30 degrees to the right.

D: square on, about 5 feet away.

Closer than 2.5 feet the camera cannot hold the whole sheet in focus, which is what spoils most photographs we receive.



5 Send it to us

Upload the photographs at pissinhot.com/targets. The page explains what we do with them and asks your permission; nothing is published without it.

Send the original files. Do not crop, rotate, edit or filter them, and do not send them through a messaging app, which shrinks them until the software cannot measure them.

If you own a scanner, a flat scan at 600 dpi of the same sheet, saved as PNG or TIFF with auto-crop and auto-enhance turned off, is worth more than everything else combined. Please send it too.

Thank you. Every sheet makes the measurements better.

