3D Print - How to calibrate Z-offset with a BLTouch bed leveling probe sensor

I looked all over for the best resource to level my BL Touch probe. Finally, I found one on YouTube from 3DMN.

Follow these instructions to calibrate your 3D printers BLTouch bed leveling probe sensor.

What software do I need?

You can use any software that allows you to enter commands in your 3D Printer terminal/console including:

- Pronterface (https://www.pronterface.com/)
- Raspberry Pi 3 or 4 with OctoPrint / Octopi (https://octoprint.org/)

BL Touch Z-offset Leveling Instructions

Connect your computer to your 3D Printer using a USB cord and launch Pronterface.

1. Home your 3D printer
2. Reset Z0-Offset
```
M851 Z0
```
3. Store setting to EEPROM
```
M500
```
4. Set active parameters
```
M501
```
5. Display Active Parameters
```
M503
```
6. Home your nozzle and show your Z-Axis
```
G28
```
7. Move the nozzle to true 0 offset
```
G1 F60 Z0
```
8. Switch off soft end stops
```
M211 S0
```
9. Get a piece of letter/A4 paper and place it under your nozzle
   Lower your nozzle towards bed slowly until the paper can barely move
10. Take note of the Z on the printer display (take that number and add the measurement of the calibration sheet or device used)
11. Set your z offset. Mine measured -2.7 so I used -2.71.
```
M851 Z -X.XX (X.XX is the z-offset you just measured)
M851 Z -2.71 (is what I used)
```
12. Enable Soft Endstops
```
M211 S1
```
13. Save settings to Eeprom
```
M500
```
14. Set Active Parameters
```
M501
```
15. Display current settings
```
M503
```
16. Again, Tell the printer to go Home
```
G28
```
17. Move the nozzle to true zero offset to see your result
```
G1 F60 Z0
```

Watch 3DMN demonstrate this in a YouTube video