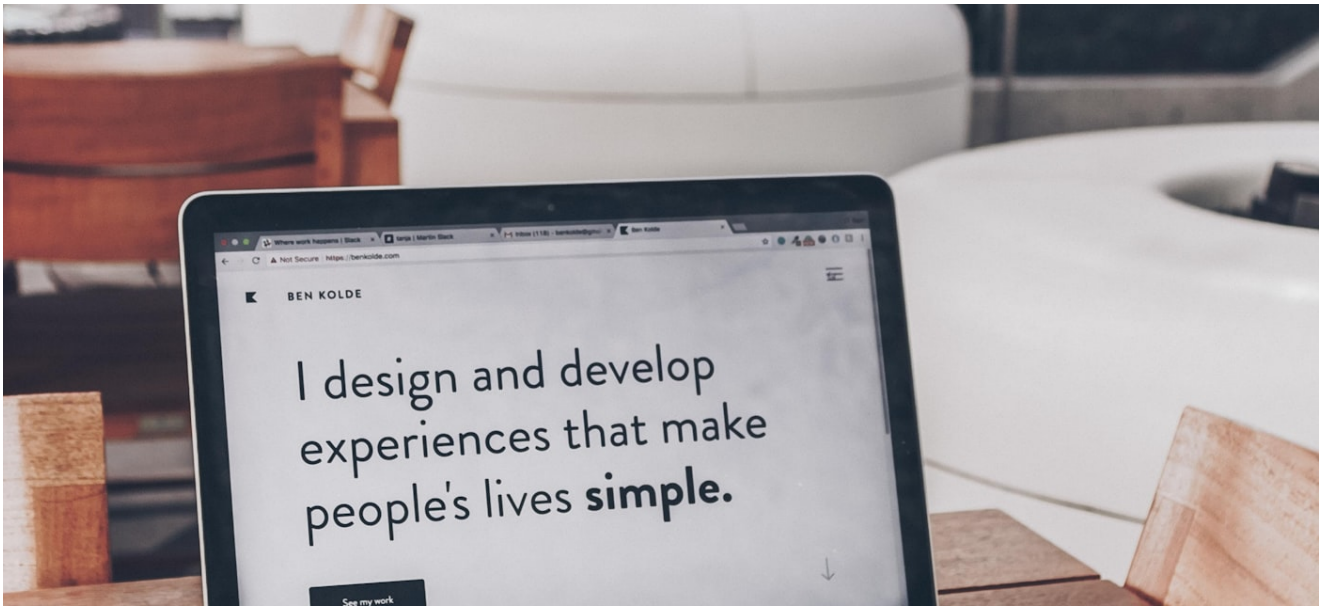
How to Use Hold Mode and Tolerance Settings for More Repeatable Angle Measurements

Single readings from a phone level aren't always enough. Learn how Hold mode and tolerance bands in Bubble Level & Angle Gauge help you take consistent, repeatable angle measurements across multiple points.

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Why a Single Reading Is Never Enough

Every phone sensor has a noise floor. Even when your device is sitting completely still on a perfectly flat surface, the accelerometer is quietly reporting fluctuations of ±0.3° to ±1°. Place that phone on a soft surface — foam, carpet, a cushioned tool bag — and the numbers dance even more. Add hand shake while you're repositioning between measurement points, and a series of readings that should be identical can spread across 2° or 3°. For a DIY shelf that's fine. For tiling a floor, hanging a run of cabinets, or checking roof pitch at three different points, that spread is the difference between a job done right and a callback.

The answer isn't to buy more expensive hardware. It's to use your measurement tool smarter. **Bubble Level & Angle Gauge** is built around two features — Hold mode and tolerance bands — that turn noisy sensor data into reliable, repeatable results.

Hold Mode: Freeze the Reading, Then Walk Away

Hold mode does one simple thing: it locks the displayed reading the moment you tap the button, so the number stays on screen even after you pick the phone up or walk away. That

sounds trivial, but it changes your entire workflow.

Without Hold, you have to read the number while the phone is still in position — often at an awkward angle, leaning over to see the screen, which can itself shift the measurement. With Hold, you place the phone, wait for the confidence bar to stabilize (more on that below), tap Hold, then stand up and read at your leisure. You can photograph the screen, write the number down, or compare it directly against a spec sheet.

Consider a practical example: you're checking lippage across ten floor tiles. Without Hold you're squinting at a moving number each time. With Hold you place, freeze, record, move — ten tiles in five minutes with no second-guessing. The same workflow applies to checking multiple shelf brackets against each other, measuring a pipe run at three support points, or verifying that a window frame is plumb on both sides.

Tolerance Bands: OK, NEAR, and OUT

Different trades have different definitions of "level enough." A tile installer working to ANSI A108.02 targets no more than 2 mm deviation per meter — that's roughly ±0.11° for lippage. A roofer setting pitch might accept ±5° without concern. A furniture assembler hanging cabinet doors wants to stay within ±1° or the gaps look wrong. One numeric threshold cannot serve all these use cases.

Tolerance bands in **Bubble Level & Angle Gauge** let you define your own acceptable range. Set your target angle and your tolerance, and the display shifts to a color-coded OK / NEAR / OUT system. Green means you're inside spec. Yellow means you're close but not there yet. Red means you need to adjust before you move on. You stop obsessing over the fourth decimal place and start making faster, more confident go/no-go decisions.

Calibration Profiles: One App, Many Surfaces

Factory calibration assumes a generic phone on a generic surface. Reality is more varied. A phone laid on a sheet of float glass behaves differently from one resting on rough-sawn lumber, which behaves differently still from one placed on a painted steel beam. Small surface imperfections get averaged into your reading unless you calibrate for them.

Bubble Level & Angle Gauge lets you save named calibration profiles for different surfaces or tool setups. Made an error during calibration? The undo function and the built-in self-check let you catch and correct it before it propagates into a series of bad measurements. Switch between profiles as you move from one task to another without re-calibrating from scratch each time.

The Confidence Bar: Know When to Trust Your Reading

The confidence bar is a real-time indicator of sensor stability. A high-confidence reading means the accelerometer signal is steady and your measurement can be trusted. A low-confidence reading means something is introducing noise — a vibrating floor near running HVAC equipment, a soft surface absorbing micro-movement, or a phone that hasn't fully settled after being placed.

The rule is simple: don't tap Hold until the confidence bar is high. Waiting an extra two or

three seconds for the bar to fill costs almost nothing, and it eliminates a whole category of measurement error.

Putting It All Together

A repeatable measurement workflow looks like this: open your saved calibration profile for the surface you're working on, set your target angle and tolerance band, place the phone, wait for the confidence bar to reach its peak, tap Hold, record the reading, move to the next point, repeat. At the end you have a consistent set of numbers, all taken under the same conditions, that you can compare, document, and defend.

Bubble Level & Angle Gauge is free and ad-free. Every feature described here — Hold mode, tolerance bands, calibration profiles with undo and self-check, and the confidence bar — is available from the moment you install it. Download it for iOS or Android and start measuring with the consistency your work deserves.

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