

How To Tune mmWave Using HLKRadarTool

Auto-Calibration (Average, Maximum, and Intelligent)

1. Download the HLKRadarTool app for either [Android](#) or [Apple](#)
2. Ensure the mmWave radar you want to tune has Radar Control Bluetooth turned on. Home Assistant > Settings > Devices & services > ESPHome Devices > Select Device > Scroll down and toggle on Radar Control Bluetooth

[Radar Control Bluetooth.png](#)

3. Open the app and select your device

[Find Device.png](#)

4. Turn on Engineering Mode

[EM.png](#)

5. Select More and then select Parameter settings

[More and PS.png](#)

6. Select Detect background noise

[DBN.png](#)

7. Insert Delay detection and Detection time values. (For iPhone users Delay detection cannot be 0). Then select Start. This will give us our reference values so we can auto-calibrate the mmWave sensor.

[DD, DT and Start.png](#)

8. Select Back to navigate to the Parameter settings. Then select one of the auto-calibration buttons.

Average

- Sets the gate sensitivity to the average move and still energy

[Average.png](#) or type unknown

Maximum

- Sets the gate sensitivity to the maximum move and still energy

[Max.png](#) or type unknown

Intelligent

- Sets the gate sensitivity equal to or just above the maximum move and still energy

[Intelligent.png](#) or type unknown

9. Now your mmWave should be tuned to your environment!

Manual Calibration

1. Follow steps 1-5 above

2. Select Motion or Static sensitivity, change it to your desired value, and select Set

[Manual.png](#) or type unknown

3. Now your mmWave should be tuned to your environment!

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