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When using an umbrella to measure rain, is it better to listen to the rain, or count the drops?

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With hundreds of umbrellas opening up in any given urban rainstorm and just a few rain gauges per city, using umbrellas as mobile rain gauges seems a promising method to increase rainfall information in urban areas. Following up on our prototyping work of a MacGyver sessions ago where we showed that umbrellas can indeed be used as rain gauges, we try to improve our sensor by asking and answering the question: "When using an umbrella to measure rain, is it better to listen to the sound (volume) of the rain, or should we count the individual drops that hit the umbrella?"