

Abstract: Comparison of Weather Stations at Different Price Points

There are many different instruments and methods for observing meteorological parameters such as temperature, wind speed and direction, and relative humidity. Some are used by professional agencies or research labs, others by students and weather-aware citizens. Instrumentation used by different people at varying price points may or may not produce data that is accurate and reliable. We tested a range of weather stations from different price points, comparing sensor outputs over a period to determine the accuracy of data across different price points. The importance of this information is important as it has wider implications for the role of citizen scientists and their ability to collect reliable data and report observations as accurately as possible. The results from this research could help guide citizen scientists and consumers when selecting a weather station to make observations. This could be especially important in areas that are remote or simply far from observation stations or radar sites, such as mountain communities.

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