

Abstract Submitted
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Digitally Controlled Quad Sine Wave Generator. MOHAMMED Z. TAHAR, SUNY College at Brockport — Square, triangular, and sine and cosine waves of same frequency are generated with single digital command, using off the shelf components. This method does not synthesize the waves using the continuous digital control of the out put(s), as for arbitrary wave functions. The frequency ranges from below one to thousands of Hz, with the use of one capacitor. Also, the method lends itself to the use of embedded microcontrollers for frequency and independent amplitude control through the use of multiplying digital to analog converters. Because of the omnipresence of microcontrollers, the method is an inexpensive computer controlled frequency quad sine wave generation. With the addition of an analog-to-digital converter, one can use such a generator for systems studies in control and measurements.

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