



## System for Encoding and Decoding Signals Used in Time of Flight Imaging

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### The Invention

In accordance with some embodiments, systems, methods and media for encoding and decoding signals used in time-of-flight imaging are provided. In some embodiments, a method for estimating the depth of a scene is provided, comprising: causing a light source to emit modulated light toward the scene based on a modulation function; causing the image sensor to generate a first value based on the modulated light and a first demodulation function of K modulation functions; causing the image sensor to generate a second value; causing the image sensor to generate a third value; and determining a depth estimate for the portion of the scene based on the first value, the second value, the third value, and three correlation functions each including at least one half of a trapezoid wave.

### Additional Information

#### For More Information About the Inventors

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#### Tech Fields

- [Information Technology : Image processing](#)

For current licensing status, please contact Michael Carey at [mcarey@warf.org](mailto:mcarey@warf.org) or 608-960-9867