Motion Amplification is a camera-based technique that detects subtle motion and enhances that motion to a level visible with the naked eye. Motion Amplification Technology can resolve motions as small as 250 nanometers at 1 meter. The process involves the use of a high definition and high dynamic range video cameras where every pixel becomes an independent point sensor creating millions of continuous data points in an instant. This essentially turns a high-definition camera into a full field vibration acquisition device with over 2.3 million independent sampling locations or areas of interest

These techniques can be leveraged as a camera-based vibration analysis tool that collects large-scale data and seamlessly transmits it to your IoT platform. By combining it with power-over-ethernet (PoE), a pan-tilt mount, and autofocus it makes deploying cameras for vibration monitoring easier than ever before while delivering all the benefits of Motion Amplification. Users can monitor, trend, alert, diagnose, and troubleshoot an even larger field of view and provide the most flexible, scalable, and easiest deployment method for monitoring your assets. Users will no longer need to contact their assets or even turn them off during installation; they can simply install a camera and monitor everything it can see. This allows for easy integration of vibration data into data systems through MQTT to scale IoT strategies with camera-based vibration systems.