

Demo Abstract

Demo Title: 7830 – Low Power 720p Global Shutter Sensor with Smart Motion Detect

Author/Title:

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Types of Demo:

The demo will showcase the improved pixel performance over the last generation of Global Shutter Camera spoken at tinyml 2019. The demo will comprise of a potable light box, controlled lighting to showcase the pixel performance in both low and regular light condition. Multimeters will also be used to showcase the low power in smart motion detection mode, where only the camera is awake to monitor the surroundings.

Relevance to tinyml

As we embarked on the low power Always ON for vision sensing, one of the challenges has been to keep the power as low as possible while increasing resolution. However, given the fragmentation of the IoT segments, the requirement for Field of View (FoV) varies in wide ranges from ~60deg to greater than ~160deg. In order to be able to garner sufficient spatial resolution for inferences at a distance, camera has to increase resolution and yet keep the power at the minimal to enable this segment of the market. The low power 720p global shutter serves as the vehicle to allow for developers to start investigating and be creative in more advanced inferences for future EDGE devices that requires wider FoV and yet keeping power at the core of its design consideration.