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(54) Title: DEEP LEARNING PLATFORMS FOR AUTOMATED VISUAL INSPECTION

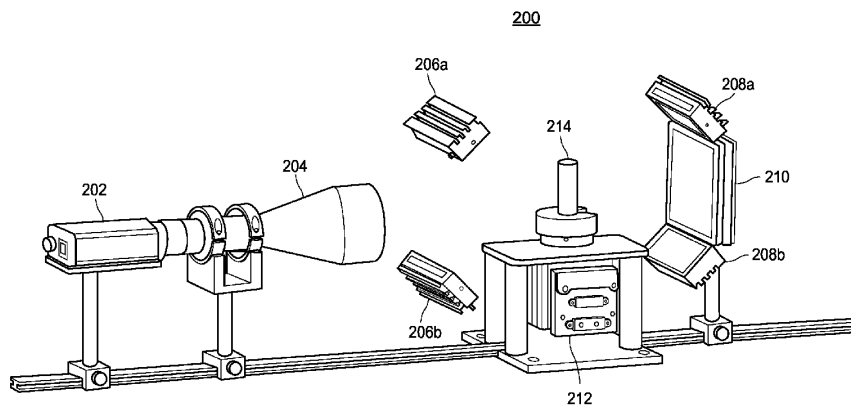


FIG. 2

(57) Abstract: Techniques that facilitate the development and/or modification of an automated visual inspection (AVI) system that implements deep learning are described herein. Some aspects facilitate the generation of a large and diverse training image library, such as by digitally modifying images of real-world containers, and/or generating synthetic container images using a deep generative model. Other aspects decrease the use of processing resources for training, and/or making inferences with, neural networks in an AVI system, such as by automatically reducing the pixel sizes of training images (e.g., by down-sampling and/or selectively cropping container images). Still other aspects facilitate the testing or qualification of an AVI neural network by automatically analyzing a heatmap or bounding box generated by the neural network. Various other techniques are also described herein.

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