An IoT video camera running **AWS IoT Greengrass** publishes training data to **AWS IoT Core**.

An **IoT Rule** that is listening for camera data forwards messages to **Amazon Kinesis Data Firehose** for storage in **Amazon S3**.

**Amazon SageMaker** is used to train, optimize, and build machine learning (ML) models that can use less than a tenth of the memory footprint found in resource-constrained devices like cameras.

**Amazon SageMaker** outputs trained models to **Amazon S3** for delivery to the IoT video camera.

**AWS IoT Greengrass** cloud service is used to orchestrate deployments of software to the target IoT video camera, including trained models, and application logic such as an **AWS Lambda** function or Docker container.

A **Lambda** function running locally on the IoT video camera performs inference using the latest version of the trained ML model.

The homeowner can use mobile applications to view the camera's video stream via **Amazon Kinesis Video Streams**.