

SMART PET COLLAR MONITORING ANIMAL ACTIVITY AND FEEDING FROM MOTION DATA

OVERVIEW

Ask any dog owner and they will tell you their pet is just another valued member of the family. Thus, it stands to reason that pet wearables are as popular lately as those for humans. SensiML has developed datasets and know-how in the collection of animal activity data over multiple years with projects and dataset IP that includes detailed collar-worn sensor data developed from the outset for ML-based recognition models that can be quickly adapted to smart pet wearables.

Activities recognizable by SensiML Analytics Toolkit:

- Walking on or off leash (time/steps)
- Running, walking, resting
- Eating and drinking events
- Jumping and trick detection

All of the above are readily achievable with video-annotated sample datasets available to jumpstart your smart pet product concept to working prototype in weeks not years.



SensiML DogIQ collar-based ML model classifies pet motion data in real-time allowing status, duration, and time logging of activity

SensiML SOLUTION

SensiML Analytics Toolkit

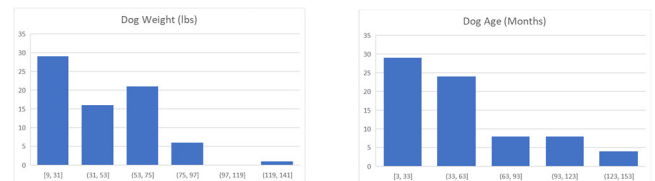
- Most comprehensive AI tool available for IoT edge devices
- No AI expertise required to use
- Binary, library, and source code AI algorithm output options
- Data Capture Lab: Easy, automated data collection & labeling
- Analytics Studio: Auto firmware creation from labeled data
- TestApp: AI model validation testing on target hardware

SensiML Knowledge Pack

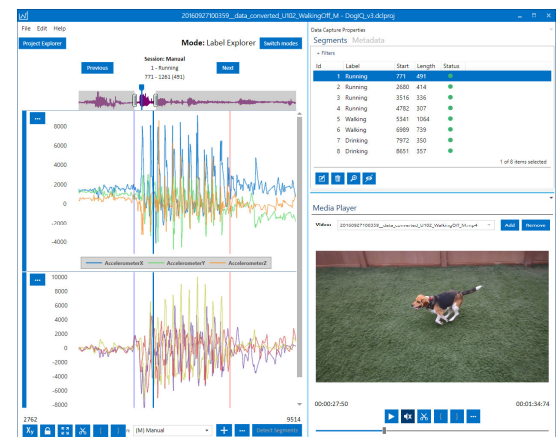
- Self-contained learning interference model code
- Extremely compact algorithms: Kilobytes not megabytes
- Local processing minimizes network overhead (no raw sensor data streaming to the cloud required)
- Support for Arm Cortex-M/A, x86, ARC architectures

SensiML Datasets and Custom Engineering Support

- Existing datasets and modeling available
- Fast time-to-market from expertise and prior projects
- Knowledgeable embedded IoT data science team
- Optional ready-to-use sensor modules for quick project starts



Dataset comprised of 70+ canines covering range of ages, weights, and breeds



Video synchronized 6DoF motion sensor data captured at 100Hz from over 40 different breeds.