EdgeBadge TensorFlow Lite for MCUs
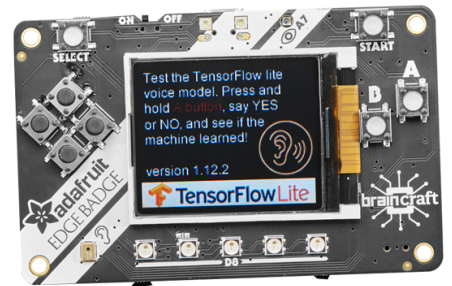
Product Overview
10-19-2021
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Description

Adafruit EdgeBadge TensorFlow Lite for MCUs is a credit card sized compact board. This board is powered by the ATSAMD51 and offers 512KB of flash and 192KB of RAM. The EdgeBadge TensorFlow Lite for MCUs offers 2MB of QSPI flash for file storage, handy for TensorFlow Lite files, images, fonts, sounds, and other assets. The board features a PDM microphone on the front as input for micro speech recognition.

The Adafruit Arduino library features some demos for the user to get started with and to recognize various word pairs like yes/no, up/down, and cat/dog. The user can code the EdgeBadge with CircuitPython, MakeCode Arcade, TensorFlow Lite for Microcontrollers/Arduino, and more. This board is RoHS2 compliant.

Features

- Triple-axis accelerometer (motion sensor)
- Light sensor, reverse-mount so that it points out the front
- Built-in buzzer mini-speaker
- Mono Class-D speaker driver for 4Ω to 8Ω speakers, up to 2Watts
- LiPoly battery port with built-in recharging capability
- A USB port for battery charging, programming and debugging
- Two female header strips with Feather-compatible pinout so any FeatherWings can be plugged in
- JST ports for NeoPixels, sensor input, and I2C (I2C Grove connectors can fit in here)
- Reset button
- On-Off switch
- RoHS2 compliant

Specifications

- ATSAMD51J19 @120MHz with 3.3V logic/power (512KB of Flash, 192KB of RAM)
- 2MB of SPI Flash for storing images, sounds, animations, and more
- 1.8" 160x128 color TFT display connected to its SPI port
- 8 x game/control buttons with nice silicone button tops
- 5 x NeoPixels for badge dazzle or game score-keeping
- Product dimensions:
  - 86.3mm x 54.3mm x 13.6mm
- Product weight:
  - 29.6g

Mouser Part Number

View Part

To learn more, visit https://www.mouser.com/new/adafruit/adafruit-edgebadge-tensorflow-lite/