tinyML® Vision Challenge Information Webinar

May 20, 2021
Questions & Answers

For additional information please see the contest page www.hackster.io/contests/tinyml-vision
or contact us at visionchallenge@tinyML.org

Q: Should we focus much on low power application. what are the other criteria's?
A: We will be showing the judging criteria in just a moment. It is also listed on the contest page.

Q: I would really like to use MicroPython and OpenMV runnjng on the Expressif ESP32 chip, in the particular tiny ESP32-CAM board with integrated 2MP camera, is this possible?
A: OpenMV doesn't support the ESP32. However, MicroPython does run onboard. One note, the ESP32 is quite slow on processor performance. So, it's going to struggle to run a CNN.

Q: Any suggestion for an alternative that has similar integration as ESP32(wifi, ble, etc.)?
A: pending

Q: What qualifies as tinyML?
A: live answered

Q: other than low power, what are the other criteria?
A: live answered

Q: may I use custom hardware like sensors not off-the-shelf?
A: Yes! Sky's the limit!

Q: Any sponsored hardware in near future for the challenge?
A: PixArt and Lattice Semi will be making sponsored hardware available. These details will be posted to the contest page next week.

Q: Does the camera/sensor have to be part of the device? Can the device post-process images/video, say from an SD card, using tinyML?
A: This is possible, however... post-processing implies it's not running out in the field which is the point of TinyML.

Q: How much this challenge is going to weight software side in comparison with hardware. I mean for a software engineering having not much knowledge about variety of hardware, how this challenge should look like? Thank you
A: It's really about the idea and how unique it is. The hardware is not important too much. The magic is in the software.

Q: Vision is important, true. However, the pie chart is the wrong argument as it covers only the 5 human senses. We've got sensors for a whole lot of other interesting phenomena to measure and predict.
A: Yes, but this is the vision challenge. However, a 1D sensor technically could be called vision. We are looking for camera-based products in this contest. There are other contests for non-vision-based ML solutions.

Q: As a small start-up with intention to grow, we are always asked by potential investors how the IP is protected. How exactly does this work in this context of open competition like this?
A: You don't need to submit all of your work. Just something that shows off the basic idea. E.g., a demo version. Also, if you think you will be patenting something, you'll want to file a provisional patent before disclosing the details via the contest. This gives you a year before you must file a US patent.

Q: Is there going to be any forum for mentoring? For students like us it would be helpful
A: There is the contest discussion page, and you are more than welcome to start threads on our discussion site: forums.tinyml.org

Q: will the competition be regionalized?
A: There is only one contest for this challenge - open to everyone globally.

Q: Any timeline about the availability of sponsored hardware?
A: live answered

Q: Does tinyML work with deep architectures as UNet or ResNet?
A: live answered

Q: Is RPi-ZeroW powerful enough to run OpenMV?
A: The Zero runs linux and OpenCV.

Q: Are you planning to sponsor the hardware by any chance?
A: Yes as just discussed there will be sponsored hardware available from the different sponsors. Please check the Hackster contest page - starting next week - for details.

Q: will raspberry pi pick be valid option or choice?
A: Yes! It is! Think about how to deploy it though in a low power way.

Q: The challenge will focus any specific group of applications?
A: Anything you want to do!

Q: sorry raspberry pi pico be a good choice?
A: We are bringing support for OpenMV on the Pico. So, it will be able to run our software soon.

Q: How much low power is low power?
A: Could hypothetically run on a battery.

Q: In last webinar it was discussed about some free hardware. Any possibilities?
A: live answered

Q: Are multiple project entries by a single team allowed?
A: live answered

Q: Is low-res thermal camera viable?
A: live answered

Q: Any sponsored hardware from OpenMV?
A: Thanks to the chip shortage we are sold out of everything! We are trying to build more units.

Q: Will be there any office hours in case we need some live support?
A: live answered

Q: How can I team up?
A: pending