**PYTHON FOR EMBEDDED SYSTEMS**

Probably it is odd to think of Python for developing embedded application as opposed to typical C/C++. Python has its own advantage and disadvantages when it comes to embedded programming.

Major advantage being not to worry about dynamic memory allocation and memory leaks, ease of programming and readability.

Major disadvantages being high execution time as with interpreted languages and it makes us to think it can never be suitable for hard real time applications.

On the positive side, a lot of developments are happening to make Python suitable for Embedded systems. Let us briefly see about the current developments in this area.

1. **Micropython on PyBoard:**

This is a great step toward achieving the goal of Python in embedded systems. It is a slim version of Python 3+ implementation on a microcontroller called Pyboard. The key features of Micropython on Pyboard can be found here: <https://micropython.org/>

Practically, you can do some cool projects using this board and don’t forget to check out the listed projects. It comes with a built-in sensors like accelerometer, gyrometer etc. Very effective!

1. **Viper(Viper is Python for Embedded in Realtime):**

I don’t think it can get anything cooler than this!

Python for RTOS?!?! Yes! Look here: <http://www.viperize.it/>

This is a python implementation for Real-Time Embedded OS currently for ChibiOS which is open source real time OS and some rapid developments are made.

People interested especially in automotive embedded control should look forward to using this or start using this right away! You can get to know what actually is a RTOS and how important it is for autonomous vehicles and drones!

1. **Micro-bit from BBC:**

This is not yet released but will be out by end of October I suppose. Another low cost embedded controller with slim version of python installed. Suitable for small home projects.

After all, it is a matter of time before we start programming in Python even for hard real time applications! I also thank all these developers who put their best to create such cool things!