

Hardware Hacking

An introduction
To some of the
New embedded
Platforms.

Introduction

- Who am I?
 - Been in IT for 20 years.
 - PC repair
 - Networking
 - Security/Hacking
 - Software Testing
 - Just a guy who loves to tinker with things.

Are you a Developer?

- The Questions.
 - Have you ever developed a utility and realized that your PC is way overkill?
 - Have you ever wished you could create your own hardware to use your application?
- The Solution.
 - NOW YOU CAN DO IT!

Arduino



Arduino Benefits

- Great Beginner board!
- Easy IDE (Based on C)
- Lots of Books, Links, Videos, and Tutorials!!!
- Lots of Extra Stuff to buy for it!
 - LEDs
 - Sensors
 - Shields
 - <http://www.adafruit.com/category/17>

Arduino Links

- <http://arduino.cc/en/>
- <http://www.adafruit.com/category/17>
- http://www.makershed.com/Arduinos_Accessories_s/43.htm
- <http://www.sparkfun.com/categories/23>
- <http://www.goldmine-elec.com/>

- And Lot's lot's more!

Arduino

The Demo.

BeagleBone



Beaglebone Benefits

- Full Linux Distro on the Board!
- Uses Capes not Shields
- Cortex CPU/256 MB RAM/Micro SD Card slot
- 10/100 Ethernet Port on the Card.
- Cloud 9 to Develop on the card!
- Choice of Linux, Android or even Windows!
- FITS IN AN ALTOIDS TIN!!!!!!

Access your Beaglebone

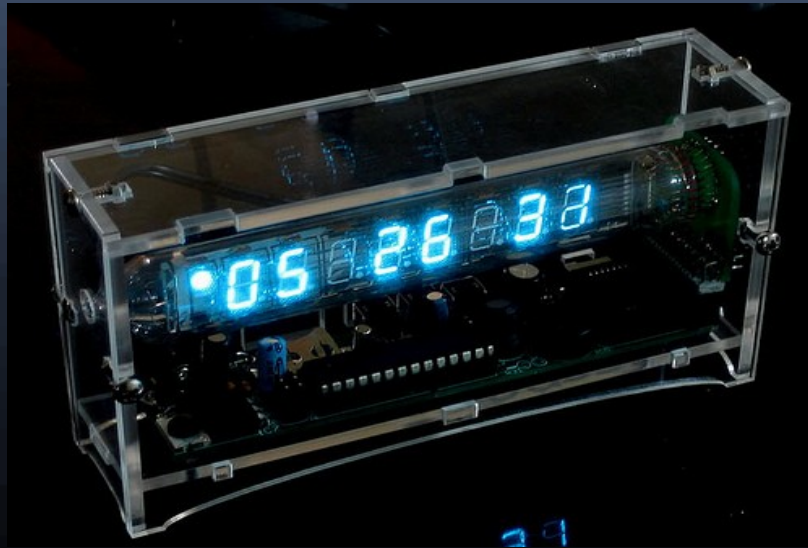
- Ethernet over USB. (special Drivers)
- Port 22. SSH
- Port 80. Beaglebone 101 presentation
- Port 443. Gateway console
- Port 3000. Cloud9 IDE.
- USB KVM

Beaglebone Cons

- Brand Spanking New
- No tutorials yet.
- EVERYONE is still learning the hardware layout.
- No Video on the board (Capes in development)
- Not many Capes yet.

Other Platforms

- Parallax Propeller
- Chumby
- Or Build your own from Kits or even scratch!



Helpful Extras

- You will probably need to learn how to solder.
 - Schmartboards are great for surface mounts.
- ARDX is a great learning package!
- Go to your local Hackerspace and meet with others who are into these platforms.
- Mailing lists, Forums, websites, etc.
- [Www.hackaday.com](http://www.hackaday.com) Is excellent for ideas!!!

THANK YOU!!

Questions and Answers