

# Getting Started with DragonBoard™ for Embedded Development

**Ryan Kuester**

Independent Consultant

[rkuester@insymbols.com](mailto:rkuester@insymbols.com)

DragonBoard™



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## CPU Daughterboard

APQ8060  
ARMv7  
Dual core  
1.5 GHz  
512 MB RAM  
4 GB eMMC

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## Video

Adreno™ 220 GPU  
24-bit 1440x900  
RGB  
4-lane MIPI DSI

HDMI Out  
1080p HD Video

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## Camera

4-lane MIPI CSI  
2-lane MIPI CSI

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# Wireless Card

Wi-Fi b/g/n  
Bluetooth

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## Sensor Card

- Pressure
- Temperature
- Compass
- Accelerometer
- Gyroscope

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**Also**

Ethernet  
5 SDIO  
173 GPIO  
I2C  
SPI  
UART  
USB OTG  
I2S  
PCM

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>50 voltage regulators

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# Best practices are required

Fully embrace the device model in drivers

Employ aggressive power management

Look to ecosystem for guidance & training

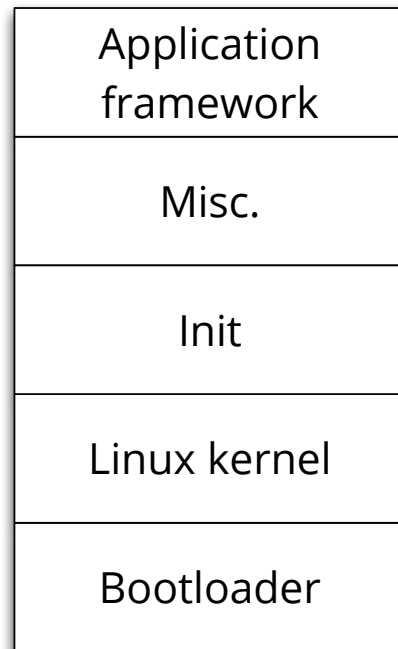
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Imagine what else you could build  
with a smartphone chipset

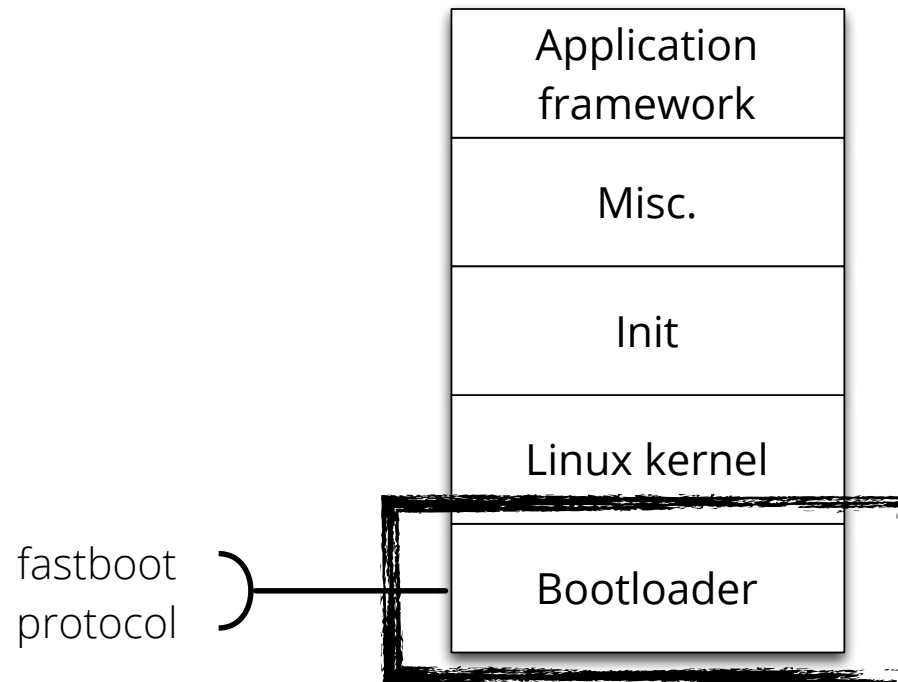
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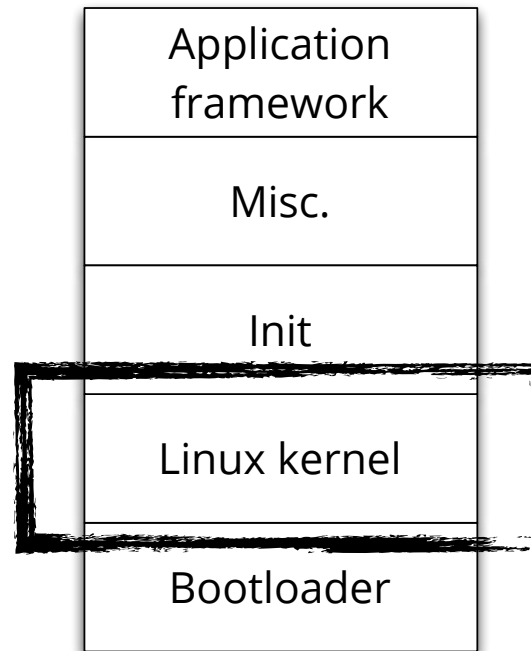
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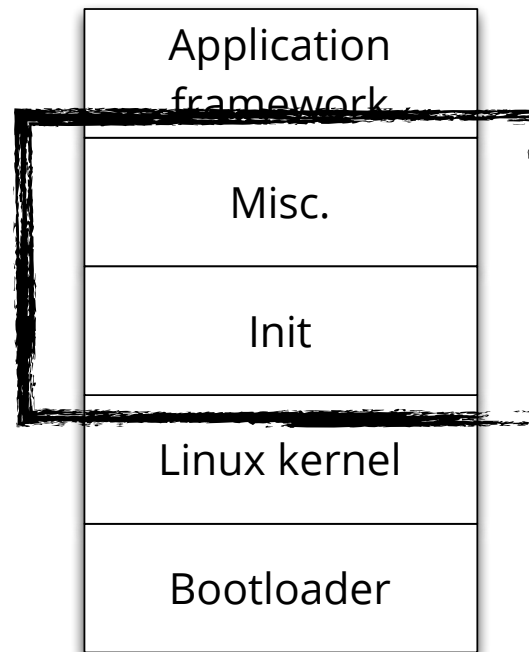
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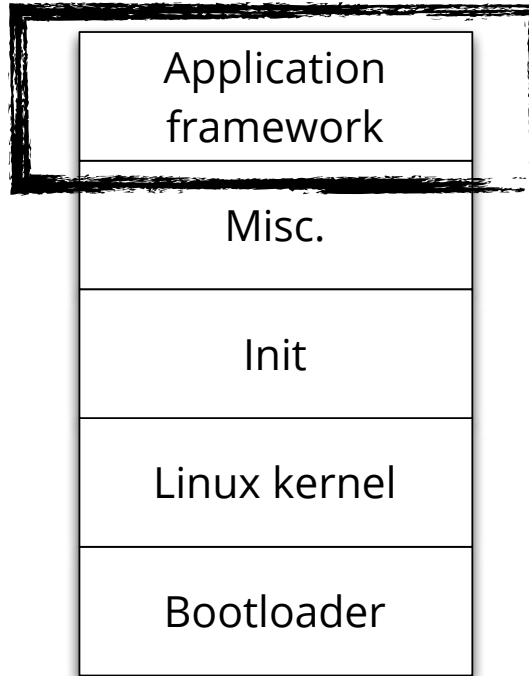


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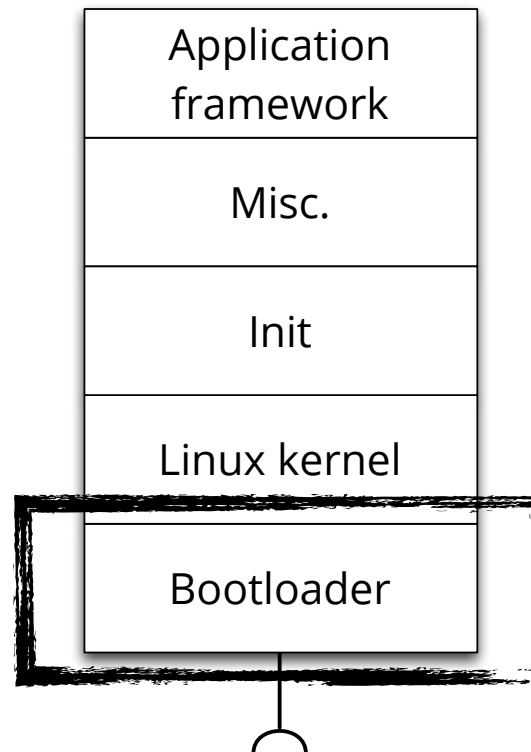
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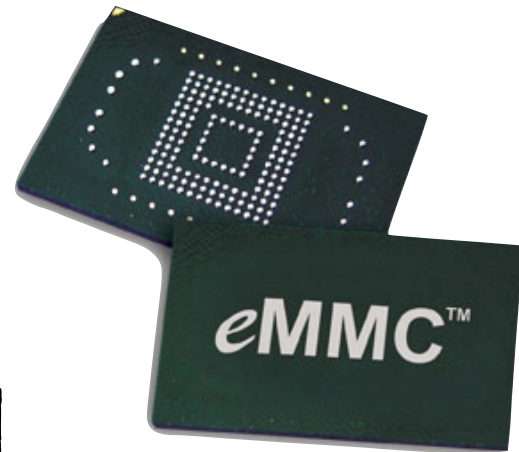


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Normally don't touch this

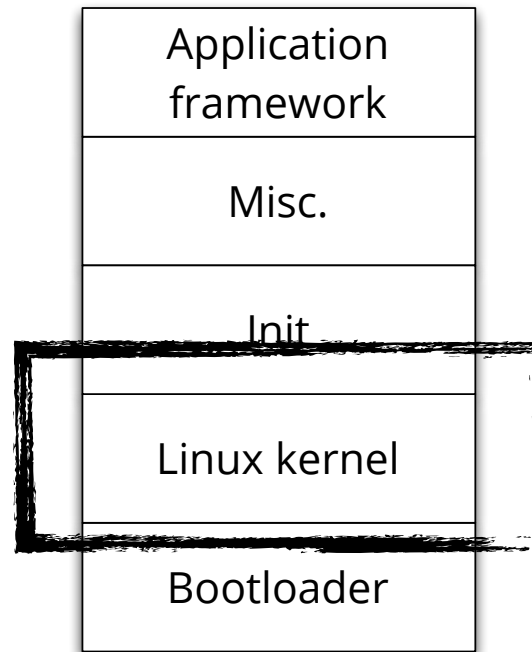


```
# fastboot flash $IMAGE
```

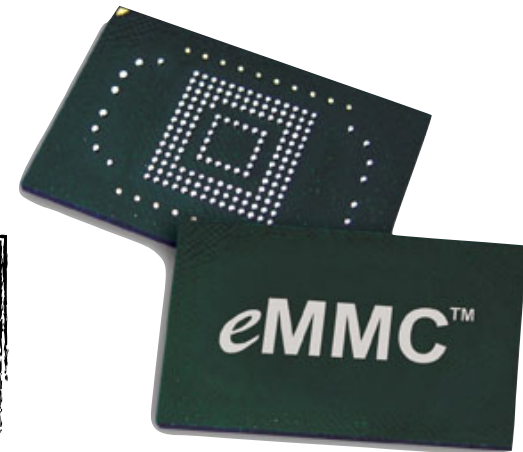


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boot.img

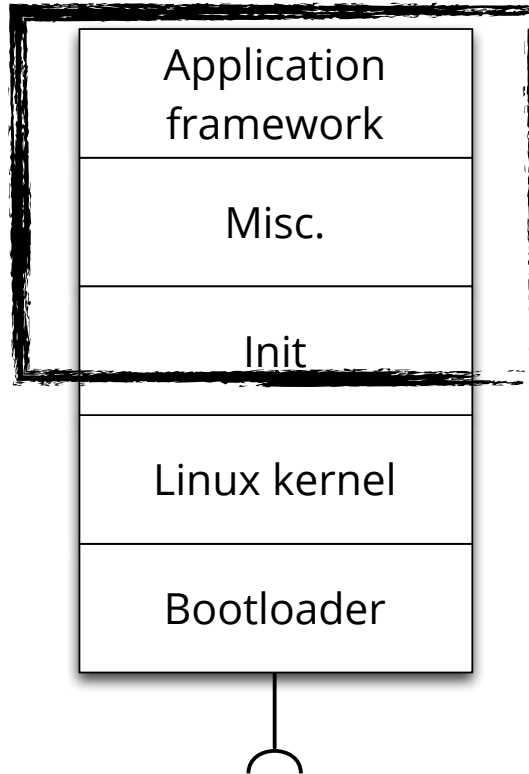


# fastboot flash \$IMAGE

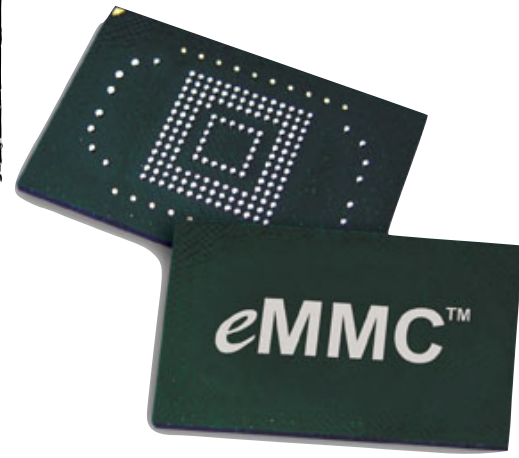


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system.img



# fastboot flash \$IMAGE



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myDragonBoard.org



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# Demo

CodeAurora Forum

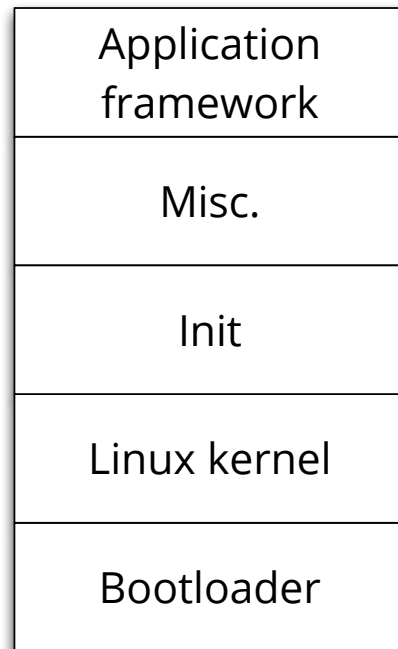
repo

build system

fastboot

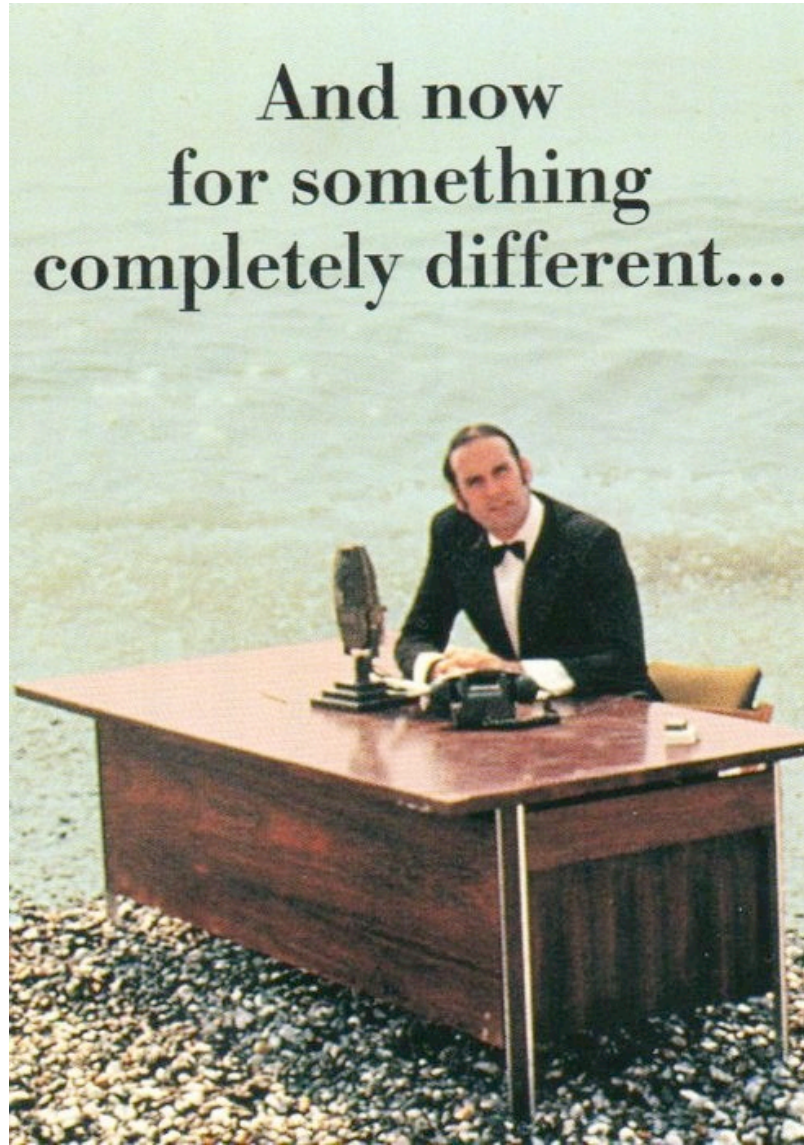
adb

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And now  
for something  
completely different...



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Pragmatux

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Pragmat**ux**

is taking Debian and deriving an OS suited for embedded devices



emdebian

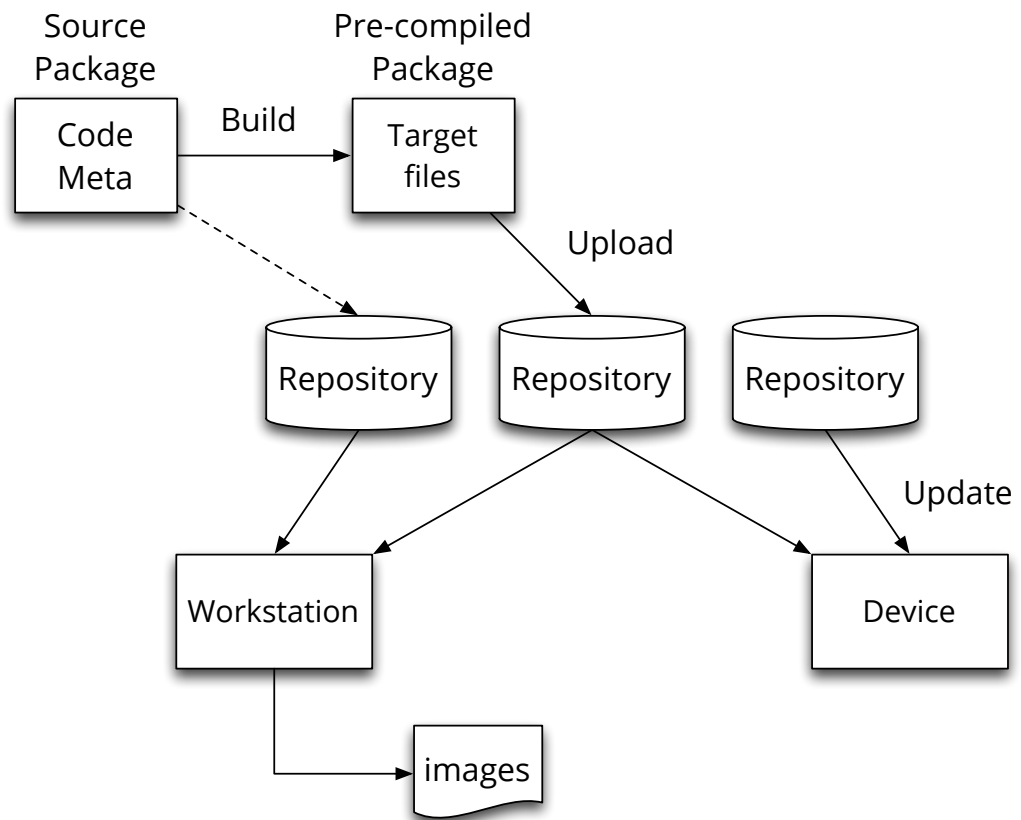
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Pragmat**ux**

embraces package management

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Package management has been  
lacking in the embedded Linux  
community

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# Develop & deploy updates

Software components

Configuration

And development environments

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## Other advantages

Access to 29,000 open-source packages

Cross-tools and libraries

Compose packages from multiple sources

Superb documentation and community

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# Demo

Create development workstation

Build target images

Flash DragonBoard

Kick the tires

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Pragmat**ux**

DragonBoard™



Pragmat**ux**

<http://www.pragmatux.org>

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# Giving Developers the Tools & Resources to Succeed

## Snapdragon Development Platforms

- Early access to leading edge APIs and next generation features
- Accelerate time to market for next-gen content
- Create and optimize applications



[developer.qualcomm.com](http://developer.qualcomm.com)  
[myDragonboard.org](http://myDragonboard.org)

- Technical optimization support
- SDKs
- APIs
- Sample Code
- Guides and Tutorials
- Developer Forums
- Blogs
- Discovery

Develop

Discover

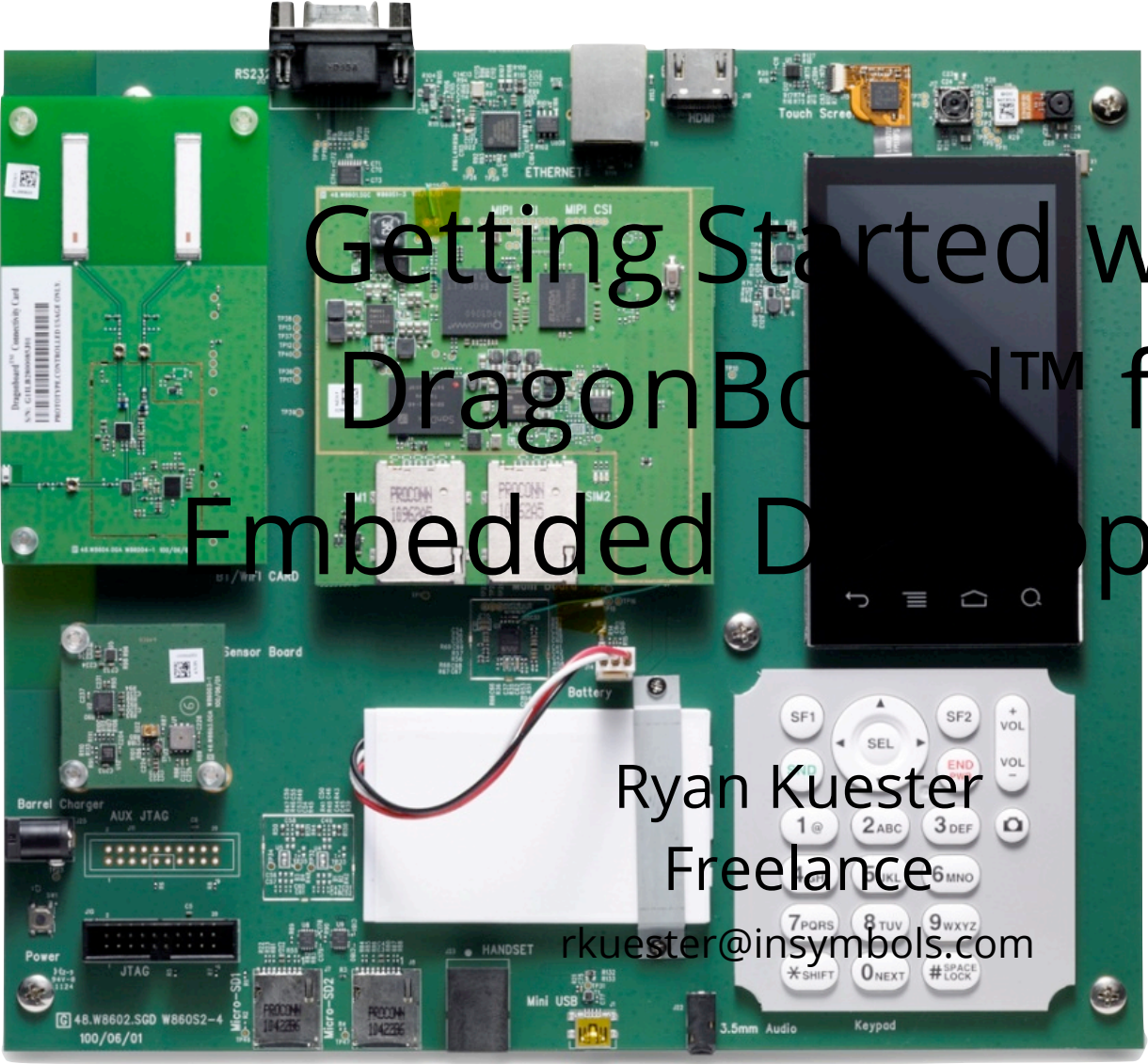
Distribute

Download

Discuss

**Linuxcon 2012 Call to Action:**  
Register on <http://mydragonboard.org>  
Invitation Code: **antirrhinum**

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DragonBoard™ for  
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Ryan Kuester  
Freelance  
[rkuester@insymbols.com](mailto:rkuester@insymbols.com)

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