Microprocessors for IoT

BRAD TORRENCE
IoT devices

- Can be very busy:
  - Interfacing
  - Sensing
  - Processing
  - Storing
  - Controlling
  - Communicating
IoT requires a new paradigm

- Connected devices increasingly require:
  - Smarter User Interfaces
  - Faster responses
  - More data processing
  - More connectivity
    - Through improved network functionality
    - Through additional sensors/actuator connection
IoT Microprocessors

- Required to be:
  - Low-power and Efficient
    - Increases mobility
    - Offsets high computing demands
  - Highly Configurable
    - Increases range of applications
  - Extensible
    - Supports next-generation devices
ARM Technology

- Mobile device and IoT demands have led to the emergence and recent popularity of the ARM technology.
- Many ARM processors are designed for IoT
  - Low-power = perfect for mobile and IoT devices
  - Highly configurable = Compatible for IoT devices
  - Extensible = Capable of extending features to interface with future technologies
- ARM will be a big player in IoT for years to come.
References and Further Reading

- An article on Top IoT chip manufacturers:
  - [http://omnim2m.com/iot-hardware-top-iot-chip-manufacturing-companies/](http://omnim2m.com/iot-hardware-top-iot-chip-manufacturing-companies/)

- ARM’s IoT market website: