Team 07 – The Caffeinators

Mid Semester Demo
Tools of the trade
Accomplishments

- Successfully booted into TS-7200's onboard Linux distro
- Successfully booted TS-7200 into Debian from Compact Flash card
- Successfully connected via ethernet to a Local Area Network
Risks

- Possibility of collisions. Will use random backoff times or possibly coordinate between tags in a token ring like way.
- Possibility of lost "I can't hear you" messages. Broadcast for a period of time insuring someone is awake to hear it.
- Possibility of excessive power consumption. Unit sleeps while not interacting with unit, reason for not using tcp connections.
Tha Demo

- Turn on unit via serial
- Establish TCP connection supporting ssh protocol
Tha Demo (Illustrated)
Immediate Goals

- Boot from NFS
- Setup cross compilation toolchain
- Compile wifi stick drivers
- Configure board to use batter power
The Road Ahead

- Communicate with wifi array
- Collect wifi signal statistics
- Implement protocol to enable distributed network of tags to communicate with array in a decentralized fashion