

User Interaction: Localization beyond Satellite Systems

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Examples

- Active Badge
 - GUID broadcast by infrared
 - symbolic proximity
 - absolute positioning
 - sunlight/fluorescent lighting



Examples

- Active Bat
 - GUID ultrasonic broadcast by radio request
 - infrastructure computes absolute proximity
 - 9cm 95% of the time
 - bad scalability, hard to deploy, maybe costly



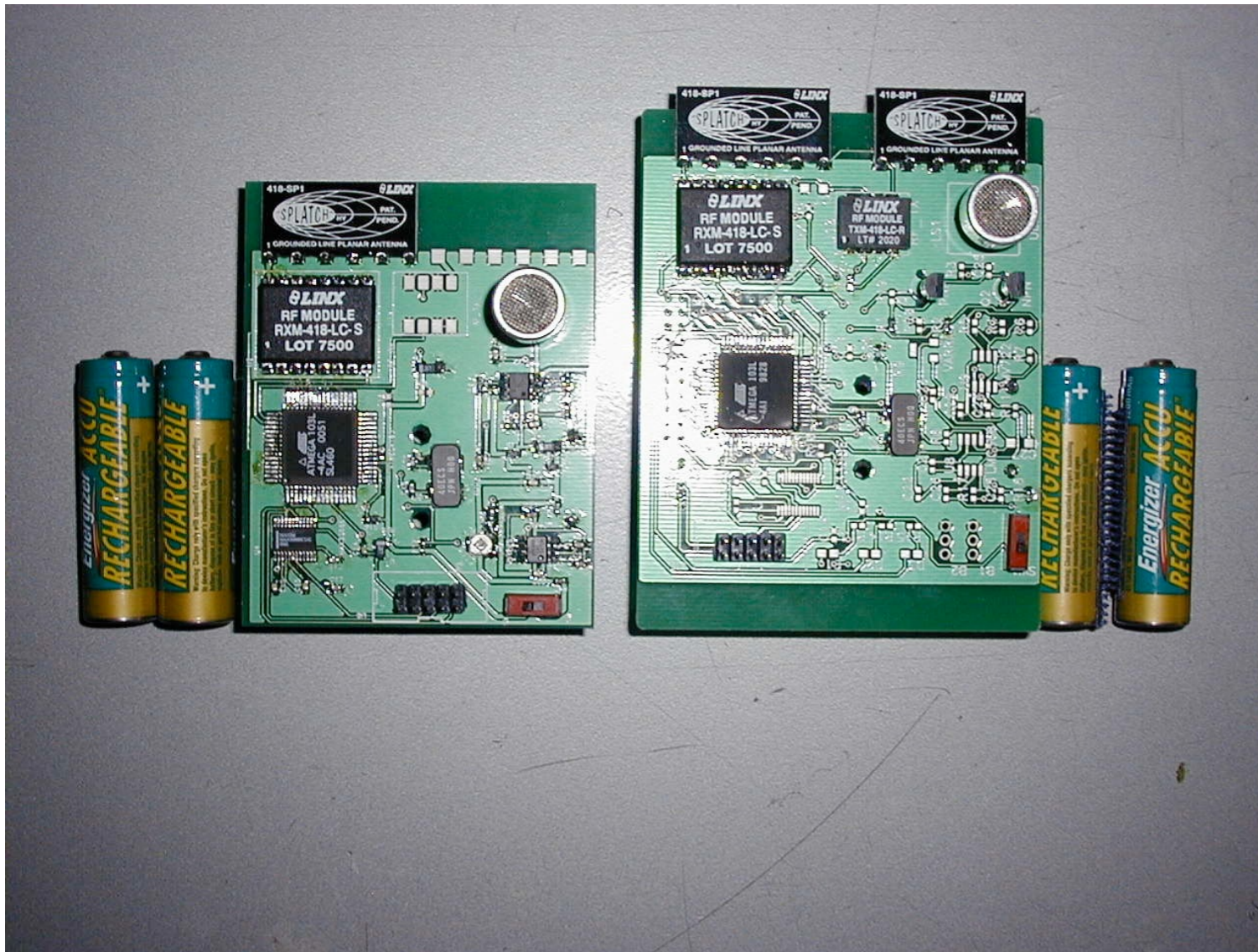
Examples

- Cricket
 - Object based ultrasonic localization
 - radio frequency control signal
 - triangulation base on time-of-flight
 - private, decentralized scalability
 - local computation -> power drain



Properties of Location Systems

Examples



Examples

- RADAR
 - building-wide tracking system
 - 2-D Wifi based localization
 - “scene analysis” through fingerprinting
 - local computation -> power drain



Properties of Location Systems



Examples

- Smart Floor
 - local tracking
 - anonymous
 - no additional equipment for a person
 - poor scalability
 - costly



Properties of Location Systems

Sun 8/14 Mon 8/15 Tue 8/16 Wed 8/17 Thu 8/18 Fri 8/19 Sat 8/20

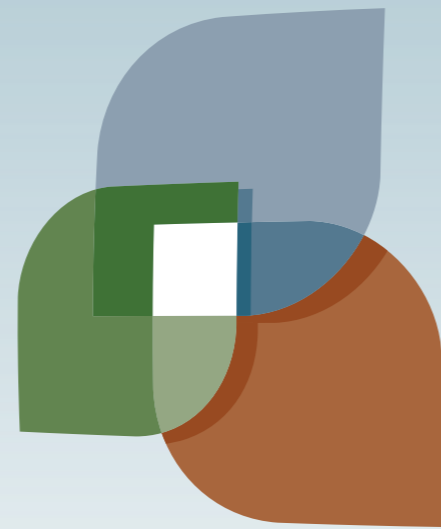
Color represents participants



Wifi Spot

13:33:2





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