



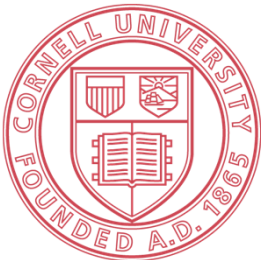
High-Level Verifiable Robotics

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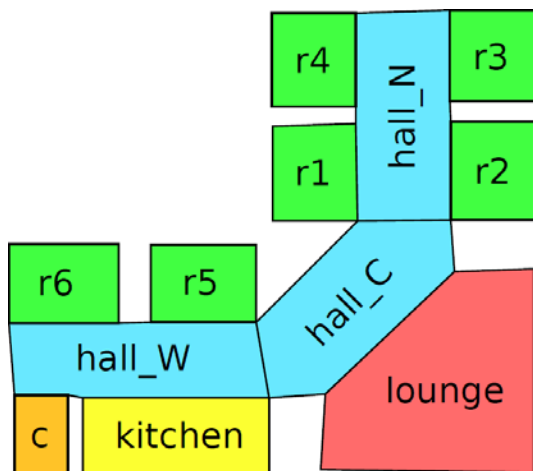
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verifiablerobotics.com



High-Level Verifiable Robotics

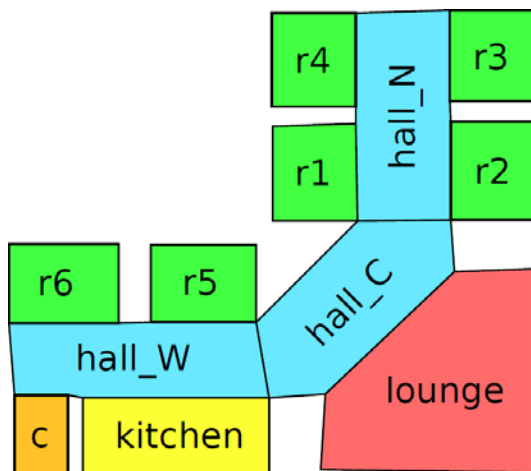
- Users provide **specification**, not implementation



Start in the closet. Carry meals from the kitchen to all patient rooms. Don't go into any public rooms.

High-Level Verifiable Robotics

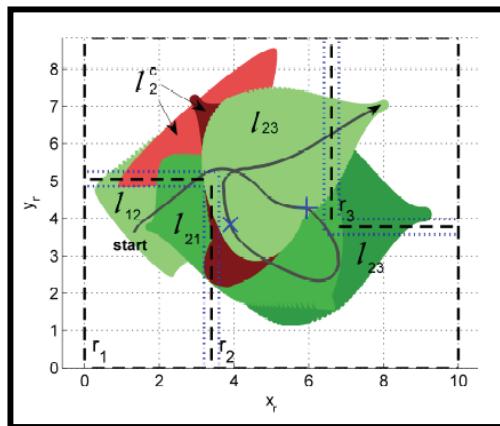
- Robot provide **guarantees** for success or **feedback** about possible failures



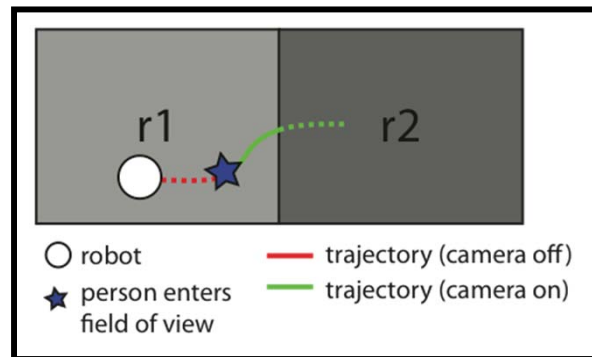
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High-Level Verifiable Robotics

- Robot provide **guarantees** for success or **feedback** about possible failures, at **multiple** layers of abstraction



IROS 2013



ICRA 2013

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RSS 2013

Challenges

- Guarantees – what can we say? What should we say? How do we get the 99.999%?
- Specification → actuation and perception