

# PoDSaR

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# Unknown Threats Pose Serious Problems To Emergency Responders



# Promising Solution



- Portable and Distributive, Search and Report Robotic Platform
- Sensor Payload: Camera, IMU, IR Probe, Temperature Sensor, Air Quality Sensor, Barometer
- Two-Wheeled with System with Jumping Capabilities
- Modular, with Divide and Conquer Algorithm

# Need Driven Metrics

- Lightweight (<5 pounds)
- Same speed as human walking ( $\sim 1.5 \text{ m/s}$ )
- Overcome short side of a cinderblock – ADA regulation buildings ( $\sim 6 \text{ inches}$ )
- Robust (able to withstand being thrown into 2<sup>nd</sup> story)
- Battery life ( $\sim 3 \text{ hours}$ )

# Achievable Timeline to MVP

- March 3, 2016: 1 wireless remote controlled, jumping robot
- March 30, 2016: 2 semi-autonomous jumping, semi-communicating robots
- April 18, 2016: 3 fully autonomous, jumping communicating final product robots
- May 1, 2016: Apply for patent
- June 15, 2016: Meet with Bressler Associates to discuss manufacturability
- June-July, 2016: Update design for manufacturability
- July 1, 2016: Meet with various manufacturer's to find lowest cost option
- July 15, 2016: Begin marketing efforts – attend Firefighter conferences, take out ads in emergency responder magazines, etc.
- August 15, 2016: Begin production of PoDSaR units

# Capable Team



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MEAM



Jordan Martin  
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