



# Keynote



**Daniel Theobald**

**Co-Founder & President MassRobotics;  
Founder, Chairman Vecna Robotics;  
Founder & CEO Mekable**





# Using Drones & Robotics to Make the World a Better Place

MR\_InteropV2\_LargeGroup2 | MassRobotics

massrobotics.org

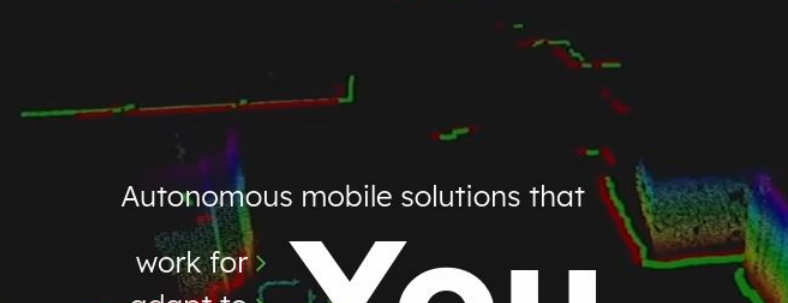
Sunpower C60 S...

massrobotics

STARTUPS | PARTNERS | STEM | OPPORTUNITIES | ABOUT US | EVENTS | RESOURCES | JOIN MASSROBOTICS

VECNA ROBOTICS

Autonomous mobile solutions that work for **You** adapt to



twisted FIELDS

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better food, better world



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Mekable

Get Started >

The Time to Mechanize is Now

Intelligent automation solutions design for resilient industrial workflows



# Vecna Robotics: Autonomous Tow Tractor



# Vecna Robotics: Autonomous Fork Lift



# Mass Robotics Main Missions

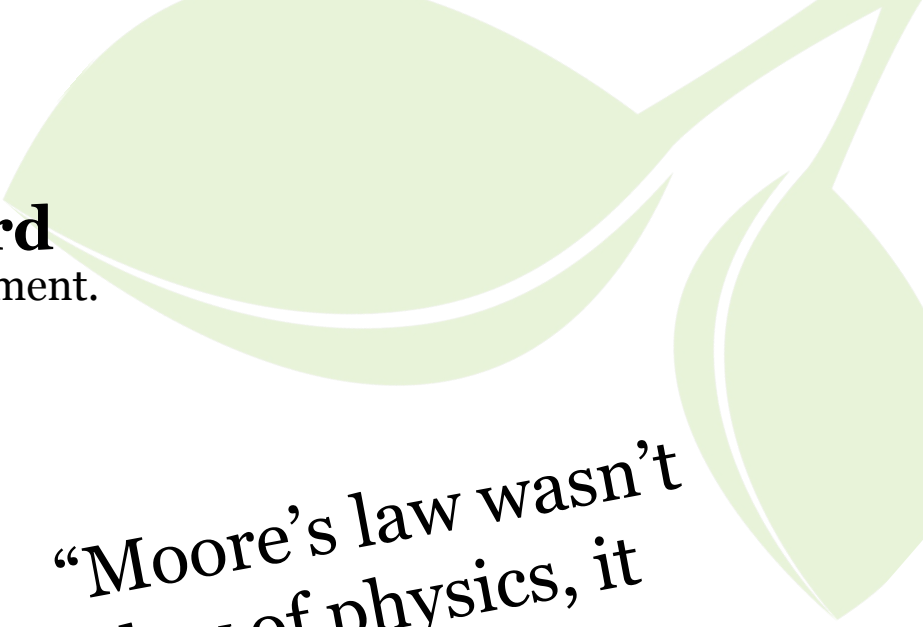
1. Connect innovators to real end users and funders
2. Help inspire the next generation of engineers
3. Help the industry move forward through standards

# AMR Interoperability Standard

Bringing an agile approach to standards development.

- Pre-competitive collaboration is crucial to industry growth
- Intel CEO and Moore's Law
- As an industry we need to work together to reduce friction of customer adoption.

Few customer needs can be met long-term by single vendor solution, collaboration unlocks many opportunities.



*“Moore’s law wasn’t a law of physics, it instead became a goal that we worked towards together as an industry...”*

# Welcome to Rancho San Gregorio!

- Home of Twisted Fields, 10 minutes from the beach, 30 minutes from Stanford, 127 acres of varied terrain and micro climates.
- Organic research farm with orchards, row crops, grains, chickens, goats, ducks, pigs, geese, quail, two Akbash, Daisy and Duke, about 40 feral cats, and one mini-cow.
- Everyone is always welcome to visit and to test their technology in this beautiful landscape, free of charge!

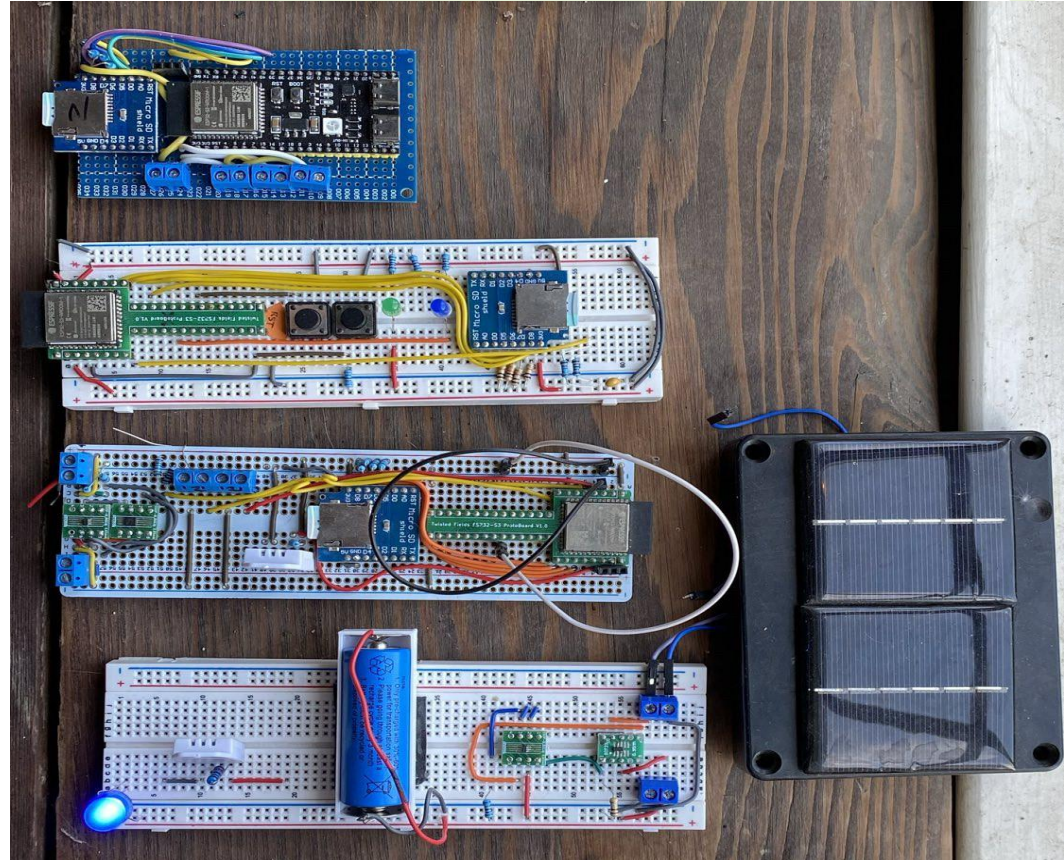




# Farm IOT

Measures: Temp, humidity, soil moisture, wind, rainfall, battery voltage, energy usage, tank levels, solar radiance, carbon dioxide, water volume, water temperature, etc.

Controls: Lights, doors, gates, valves, pumps, heaters, fans, linear actuators, (de)humidifiers, etc.



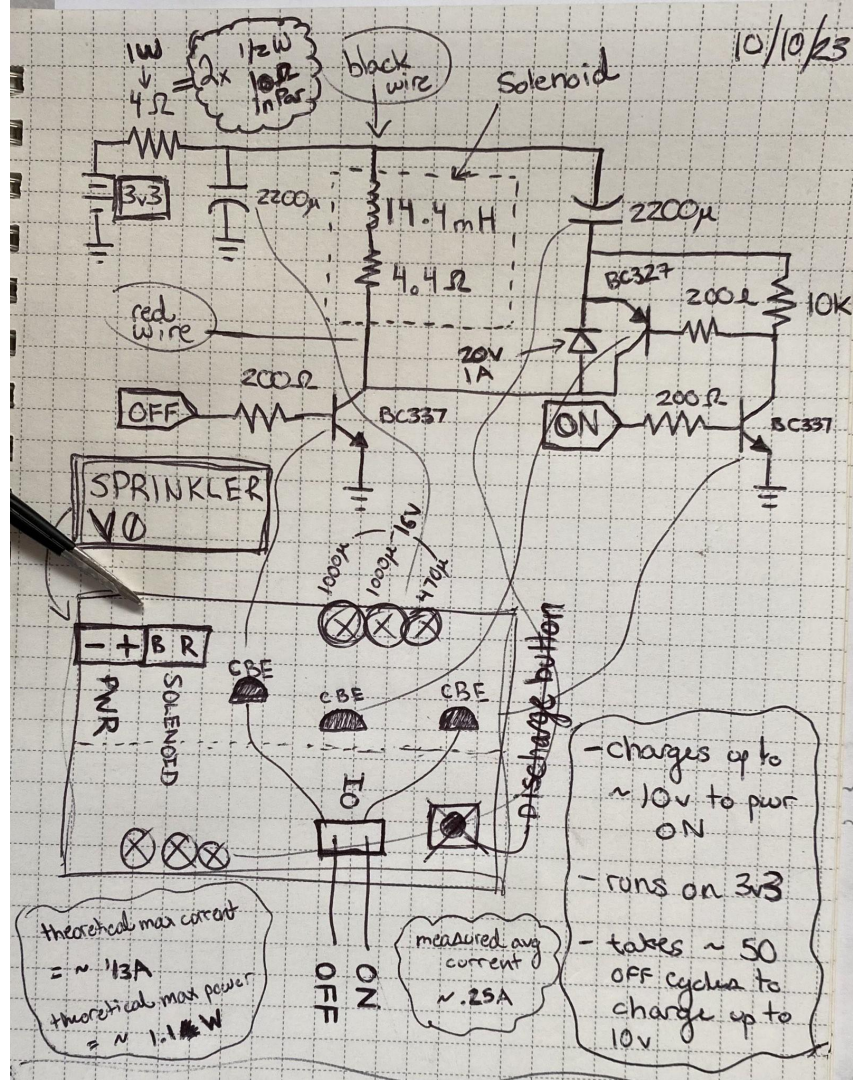
# Goat Bot



# Sprinkler Controller

Don't let yourself get disconnected from actual work and innovation.

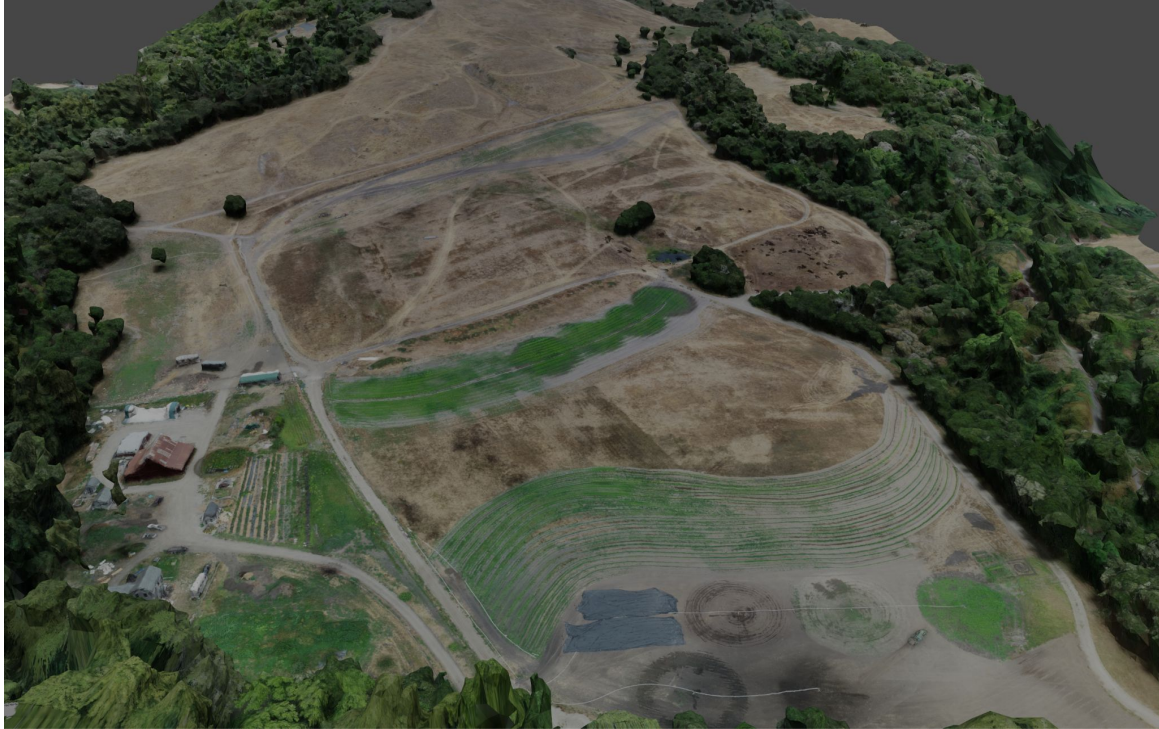
Remember what Joe Smith said:  
"Never Hire Anyone!"



# High Speed Network



# Autonomous Drone Mapping



# Autonomous Drone Mapping





# Introducing Acorn: A Twisted Fields Precision Farming Rover



1. Extremely low cost, light weight, energy efficient
2. Get kits into the hands of early adopters as soon as possible
3. Work with this community to develop tools that can help make sustainable agriculture automation a reality even for small and medium sized farms




# Introducing Acorn: A Twisted Fields Precision Farming Rover





# There is more than one way to fund your startup...

- Friends and Family
- Small Business Loans
- Trade Equity or Services
- Bootstrapping
- Incubators/Accelerators
- Crowd Funding
- Small Business Grants (SBIRs and others)
- Keep Your Day Job
- Angel
- VC



Taking VC can be  
like pressing the  
self destruct  
button on your  
spaceship.



## Some advice, lessons learned...

Try to avoid things that put an expiration date on your business

Don't give up control, you won't get it back.

No one else will care about your business like you will.

Don't assume others know more just because they speak with more confidence.

Take care of your team and customers and they will take care of you.

Fire fast, no \*sshholes allowed, they rapidly destroy company value.

Make sure you are doing what you love.

Its okay to grow slowly and take your time.

Ask for advice regularly, sometimes follow it. Help others.



Happy to help

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