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# InnoGators Internet of Things (IoT) Workshop

## Agenda

- Introduction to InnoGators
- What is IoT?
- Forms and Fields of IoT
- How to start your own IoT
- Kahoot
- Q+A

## Icebreaker



- Someone starts by saying their first name and last name. Then say two truths and a lie.
- Whoever figures out the lie says their own name, two truths and a lie and so on.

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“

*To create a space of  
innovation and collaboration  
by inviting culturally diverse  
minds and talents to  
influence the engineering  
design experience*

”

## What is InnoGators

- Design team focused on the journey and not the destination
- Work on interdisciplinary projects while strengthening your respective skillset
- Big focus on learning and building community



**TJ Thomas**  
President



**Keri-Anne Lue**  
Vice President



**Jenna Scott**  
Secretary



**Logan Hickox**  
Mechanical Lead



**Bryce Herrera**  
Electrical Lead



**Keanu Budham**  
Software Lead

## Current Projects

### Smart Grinder

- Developing an automated grinding system to aid in the recycling process for waste 3D printed parts and filament.



### Drone Project

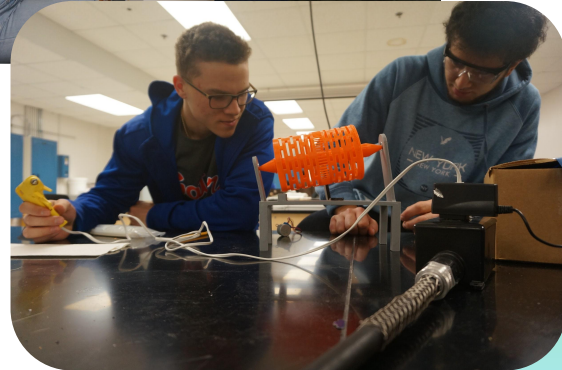
- With this project, we are programming a DJI Tello drone to fly a predetermined course in preparation for the SkillsUSA drone competition that is in the works.





## How to Get Involved

- Follow the flowchart on [www.innogators.weebly.com](http://www.innogators.weebly.com)
- Submit an interest form
- Follow us on socials @innogators
- Join the slack and trello
- Take initiative at meetings





## Summer Workshop Series



Professional Development

August 14



# The Internet of Things

And how you can be the next Steve Jobs (not really)

Electrical

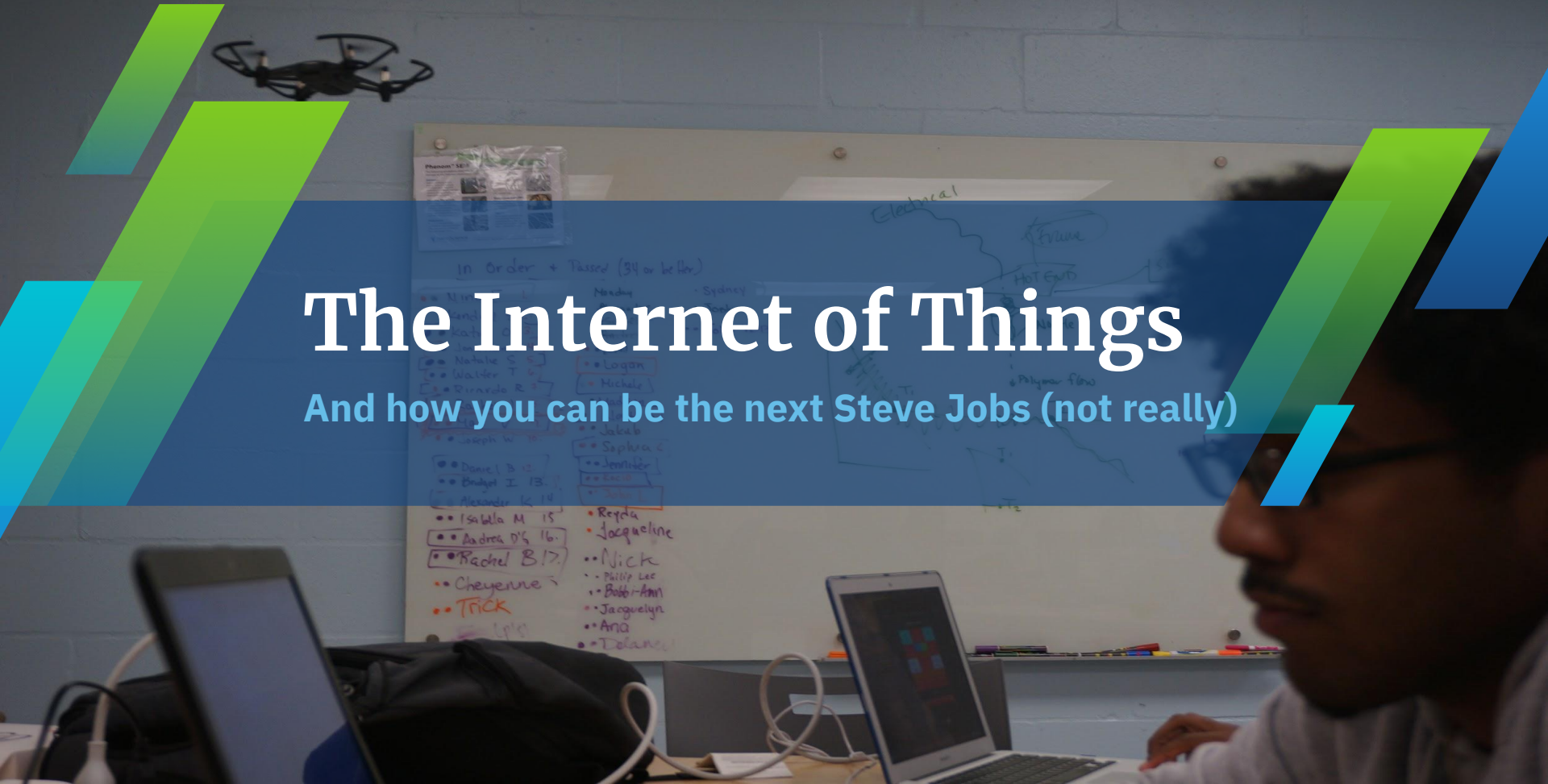
In Order + Tassel (34 or better)

Monday	Sydney
•• Nathan S 1	•• Logan
•• Walter T 2	•• Nicholas
•• Ricardo R 3	•• Jacob
•• Joseph W 4	•• Sophia C
•• Daniel B 5	•• Jennifer
•• Budget I 13	•• Sarah
•• Alexander K 14	•• Kelly
•• Isabella M 15	•• Regda
•• Andrea D's 16	•• Jacqueline
•• Rachel B 17	•• Nick
•• Cheyenne 18	•• Phillip Lee
•• Trick	•• Bobbi Ann
	•• Jacquelyn
	•• Ana
	•• Delaney

HT GWD

Polymer foil

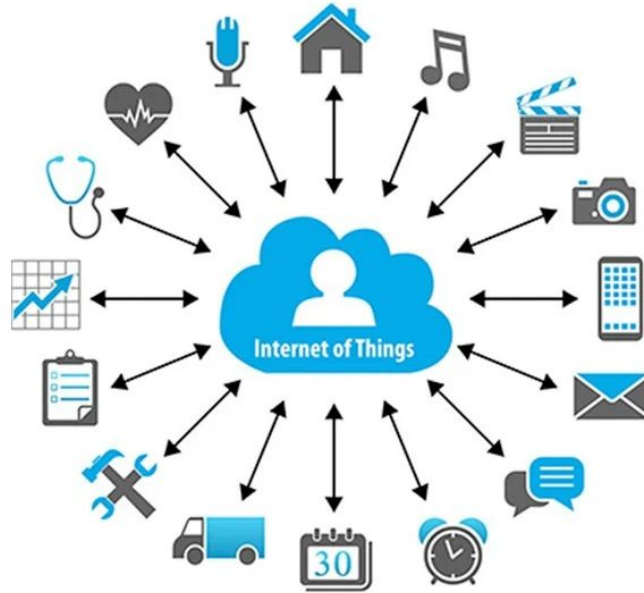
HTFE



## What exactly is IoT?

- Essentially incorporating internet and technological connections as well as machine learning and AI across everything that we interact with so that they communicate with each other.

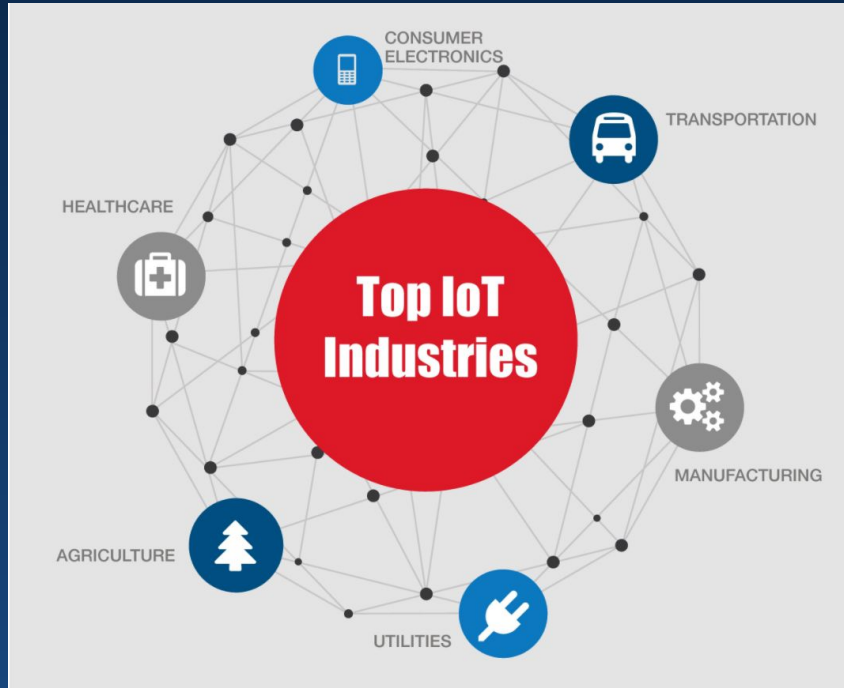
# Forms of IoT



# History Behind IoT



# Fields that use IoT



## Why is IoT important?

- Consumer-friendly in that it can be geared towards the user's preferences
- Ease of access
- Improves the quality of business's services due to the automation of tasks



## IoT in InnoGators



## How do we create IoT devices?

- Identify the problem(s) that you're trying to solve.
  - Faster transportation?
  - Better music selection?
  - Robot takeover?
- What category does your device fall under?
  - Healthcare, transportation, consumer electronics, etc.



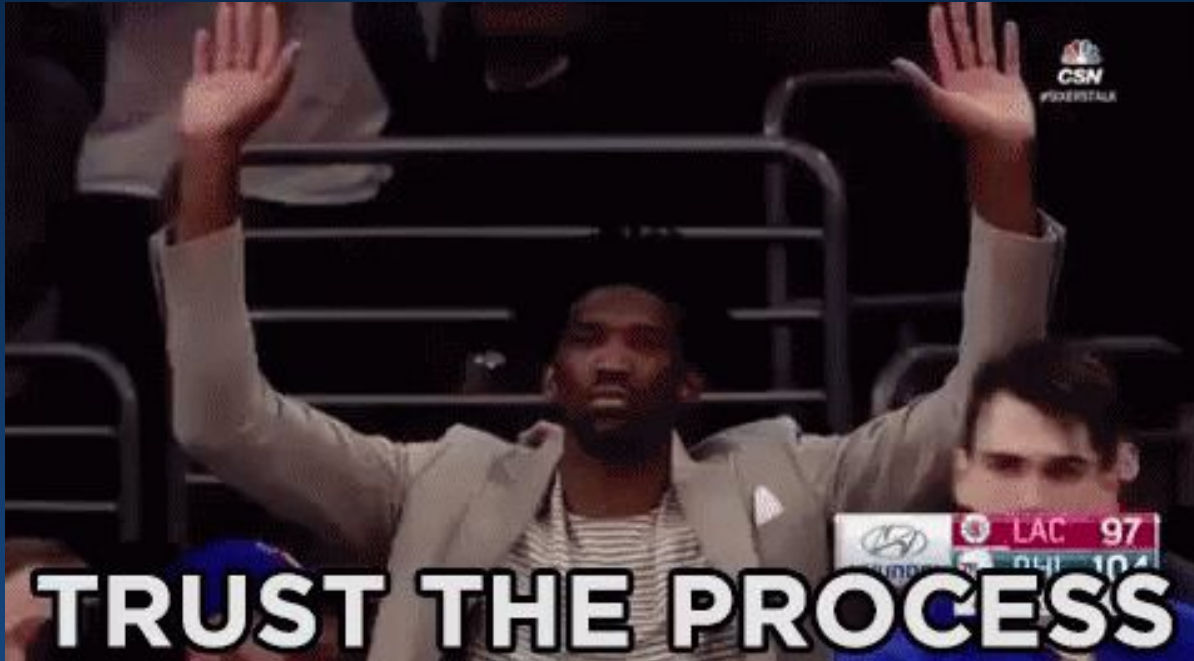
# IoT Platform

- Choose an IoT platform and tools
  - Hardware tools
    - Arduino, Raspberry Pi, sensors, GPS, microcontrollers, etc.
  - How does it need to be connected?
    - Wi-Fi, Bluetooth, USB
  - Platforms
    - Cloud servers such as Amazon AWS IoT, Microsoft Azure IoT

## Prototyping

- Should deliver the solution you planned
  - Can implement the fancy stuff later
- Doesn't have to be production-ready
  - Plans and concepts will change in the future
- **Put focus on the software side**
  - Don't think of it as just hardware support
- And most of all...

Trust The Process!!!



## Now how to be the next Steve Jobs...

- Try researching and building your own IoT device!
- <https://www.instructables.com/id/IOT-Based-VibrationFirepressure-Temperature-Monito/>
- <https://www.techiexpert.com/5-iot-projects-for-self-learning-for-beginners/>
- <https://www.insidermonkey.com/blog/10-easiest-iot-projects-for-students-617480/>



Questions?





Kahoot: What did you learn?

**Go to [kahoot.it](https://kahoot.it) and wait for game PIN**

# Questions?

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Thank you for coming!

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