



**Purdue Chapter  
Association for Computing Machinery**

President: Logan Gore

# What is ACM?

A collection of groups focused on fields in computing

- Game Development
- Artificial Intelligence
- Robotics
- Etc...

Host Special Events

- Company Tech Talks
- Help Sessions
- Student led Talks
- Programming Competitions
- Hackathons



# Ask an Intern



**How can I get an interview with Big Name Company?**  
**Should I try out a startup?**  
**How do technical interviews work?**  
**What do I do once I have an offer?**

The Facebook logo, consisting of the word "facebook" in white lowercase letters on a blue rectangular background.

facebook



Microsoft

# How to: Install Linux

Why should I  
use Linux?

What is EXT4?  
What is SWAP?

Should I install  
Arch Linux?  
(Lol, probably not)

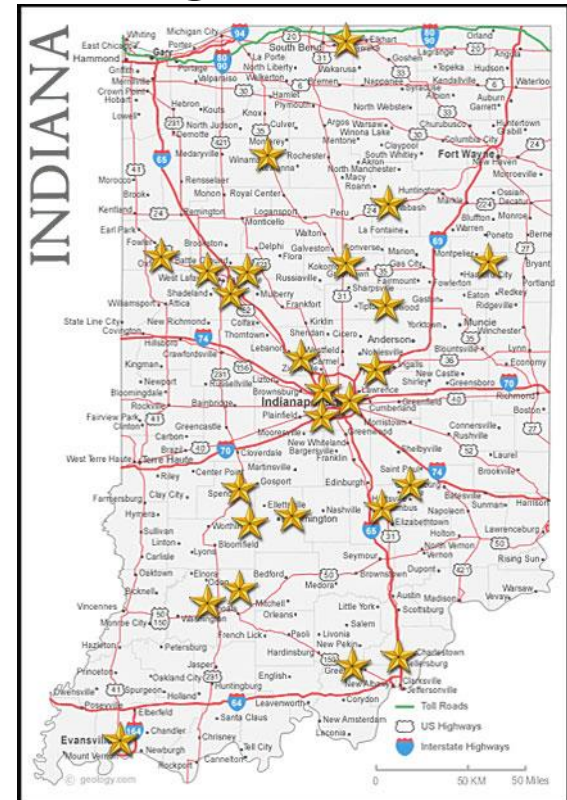


# High School Coding Competition

Simple coding questions (think FizzBuzz)

Talk to students about CS and Purdue

Learn about competitive programming



# **SIGAPP**

Applied Computing

# We Make Cool Stuff!

- Official Purdue App for Android
- Official Safewalk App for Android, iOS
- Other member projects
  
- Focus on.....
  - Android
  - Backend
  - Web

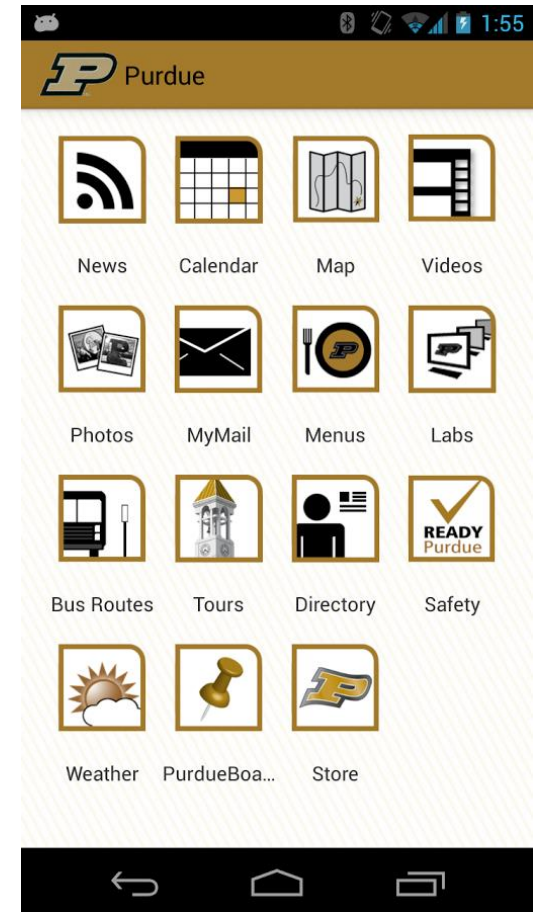
# Purdue App Today

More native features

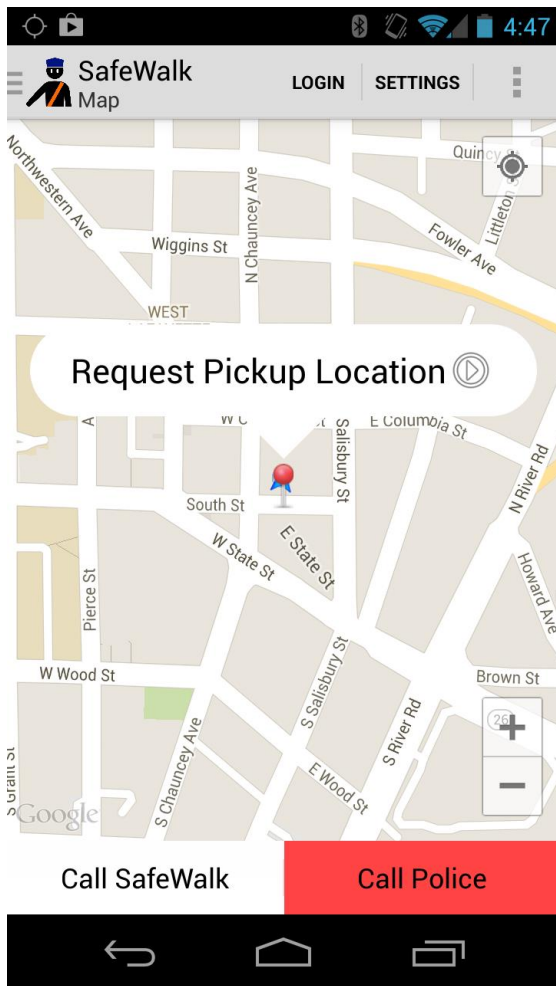
Buses

Washers and Dryers

Lots of interest from new members





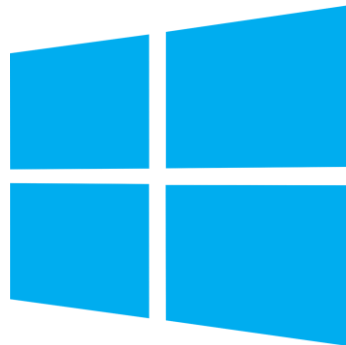
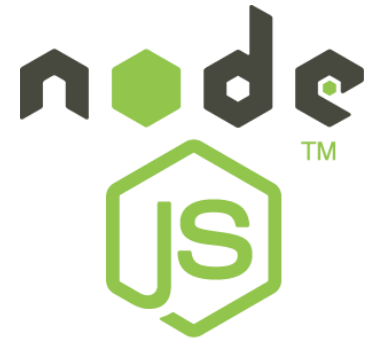


# Safewalk Today

Working 1.0  
Android, iOS, Backend

# New Members

- Many of inexperienced freshmen
- Learning tech talks and tutorials



Parse  
The Cloud Application Platform

# SIGART

**Matthew Page**

**Nikolas Ogg**

**Anubhaw Arya**

We work on interesting projects related to artificial intelligence.

LAST YEAR: WikiCrawler, Chess AI

THIS YEAR: Snake AI, TBD

# Last Year (Fall): WikiCrawler

## Wikipedia



From Wikipedia, the free encyclopedia

*This article is about the Internet encyclopedia. For other uses, see [Wikipedia \(disambiguation\)](#).  
For Wikipedia's non-encyclopedic visitor introduction, see [Wikipedia:About](#).*

**Wikipedia** (/ˈwɪkiˈpiːdiə/<sup>ⓘ</sup> or /ˈwɪkiˈpiːdiə/<sup>ⓘ</sup> *WIK-i-PEE-dee-ə*) is a **free-access, free-content Internet encyclopedia**, supported and hosted by the **non-profit Wikimedia Foundation**. Those who can access the site can edit most of its content, with the expectation that they follow the website's policies.<sup>[6]</sup> Wikipedia is ranked among the ten most popular websites<sup>[5]</sup> and constitutes the **Internet's** largest and most popular general **reference work**.<sup>[7][8][9]</sup>

**Jimmy Wales** and **Larry Sanger** launched Wikipedia on January 15, 2001. Sanger<sup>[10]</sup> coined *its name*,<sup>[11]</sup> a portmanteau of *wiki*<sup>[notes 3]</sup> and *encyclopedia*. Initially only in English, Wikipedia quickly became **multilingual** as it developed similar versions in **other languages**, which differ in content and in editing practices. The **English Wikipedia** is now one of more than 200 Wikipedias and is the largest with **over 4.9 million** articles. There is a grand total, including all Wikipedias, of nearly 35 million articles in 288 different languages.<sup>[13]</sup> As of February 2014, it had 18 billion page views and nearly 500 million **unique visitors** each month.<sup>[14]</sup> Globally, Wikipedia had more than 25 million accounts,<sup>[15]</sup> out of which there were about 120,000 active editors as of September 2015.<sup>[2]</sup>

Supporters of Wikipedia cite a 2005 survey of Wikipedia published in *Nature* based on a comparison of 42 science

### Wikipedia



## WIKIPEDIA

The logo of Wikipedia, a globe featuring glyphs from several writing systems, most of them meaning the letter **W** or sounds "wi", "wo" or "wa"

**Screenshot** [\[show\]](#)

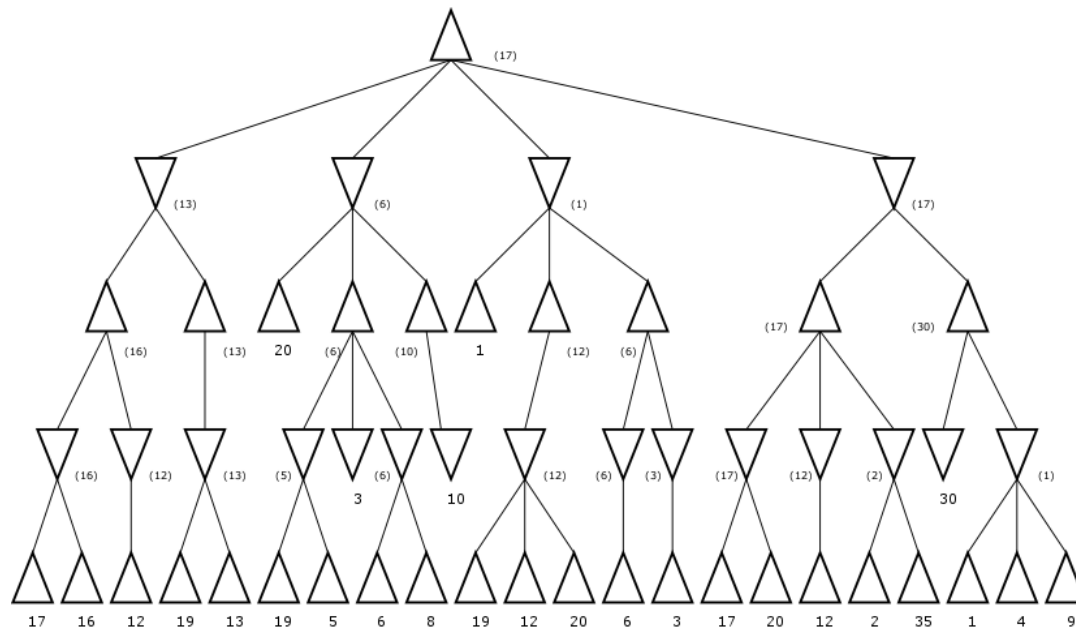
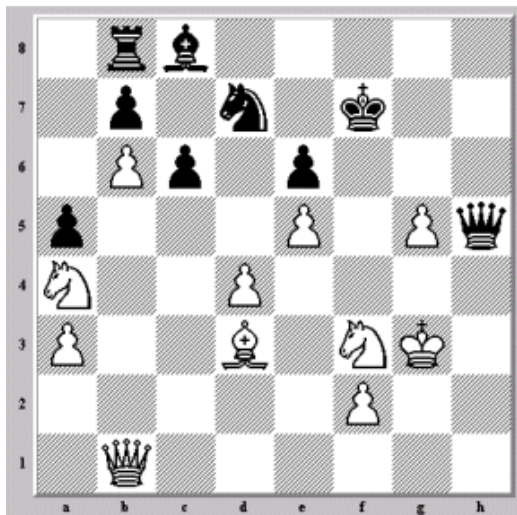
<b>Web address</b>	<a href="http://wikipedia.org">wikipedia.org</a> <a href="#">↗</a>
<b>Slogan</b>	The free encyclopedia that anyone can edit
<b>Commercial?</b>	No
<b>Type of site</b>	Internet encyclopedia
<b>Registration</b>	Optional <sup>[notes 1]</sup>
<b>Available in</b>	287 editions <sup>[1]</sup>
<b>Users</b>	120,000 active editors (September 2015), <sup>[2][notes 2]</sup> 26,130,709 total accounts.

# Last Year (Spring): Chess A.I.

MiniMax

Alpha Beta Pruning

Hackathon Competition





# This Year (Spring): Still Deciding

We're still deciding what to do for Spring.

Our current ideas include:

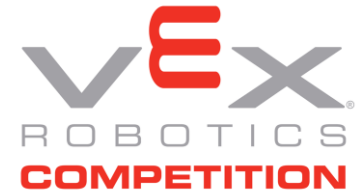
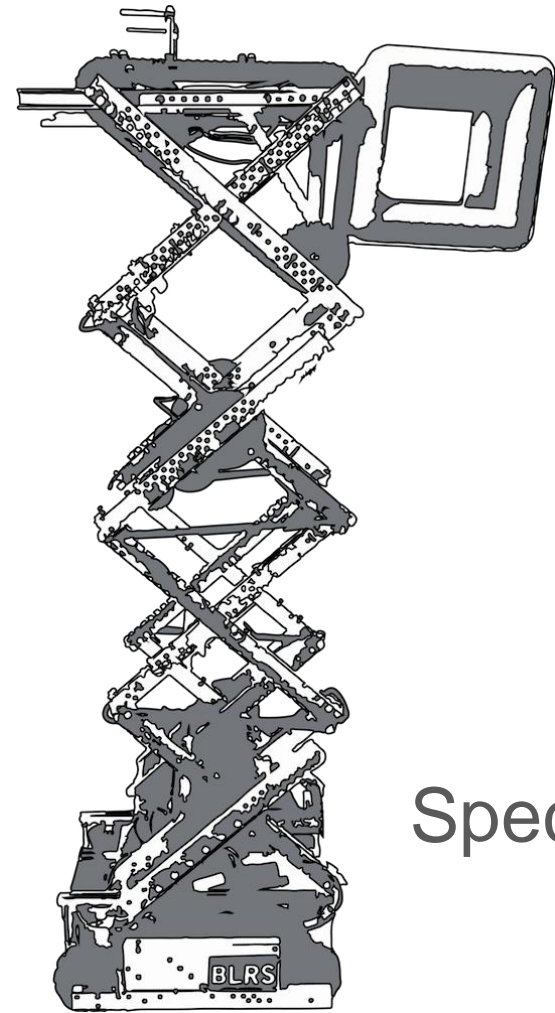
Go AI

Spellchecker / predictive text

Handwriting generation

Facial / image detection

We're open to other ideas. We'll discuss what everyone is interested in later in the semester.



# SIGBOTS

Special Interest Group - Robotics  
John Busch Jr.



# About Us



Compete in VEX Robotics Competition

Qualifiers around January, championships in April

Roughly half autonomous, half driver-controlled games

Three subteams:

Software

Electronics

Mechanics

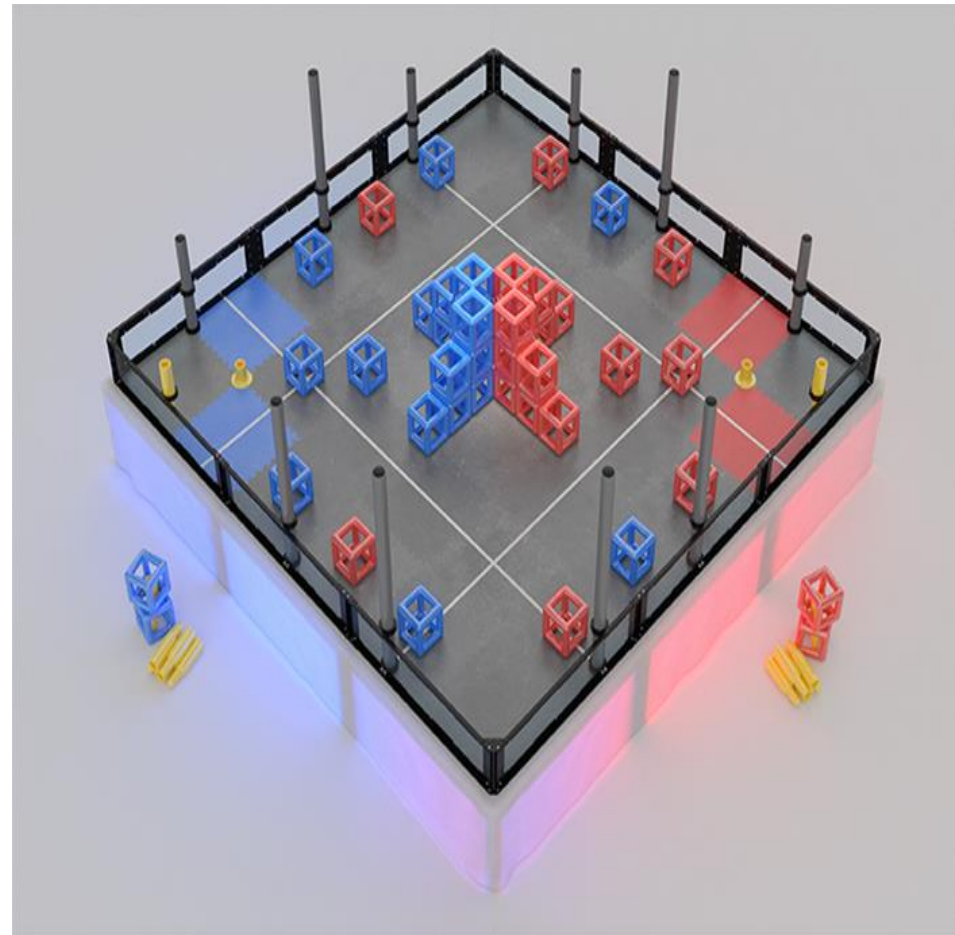


# Last Year: VEX Skyrise

Score hollow cubes on poles

Build and score on your own pole for bonus points

Extensive mechanical lift design  
(2ft → 6ft)

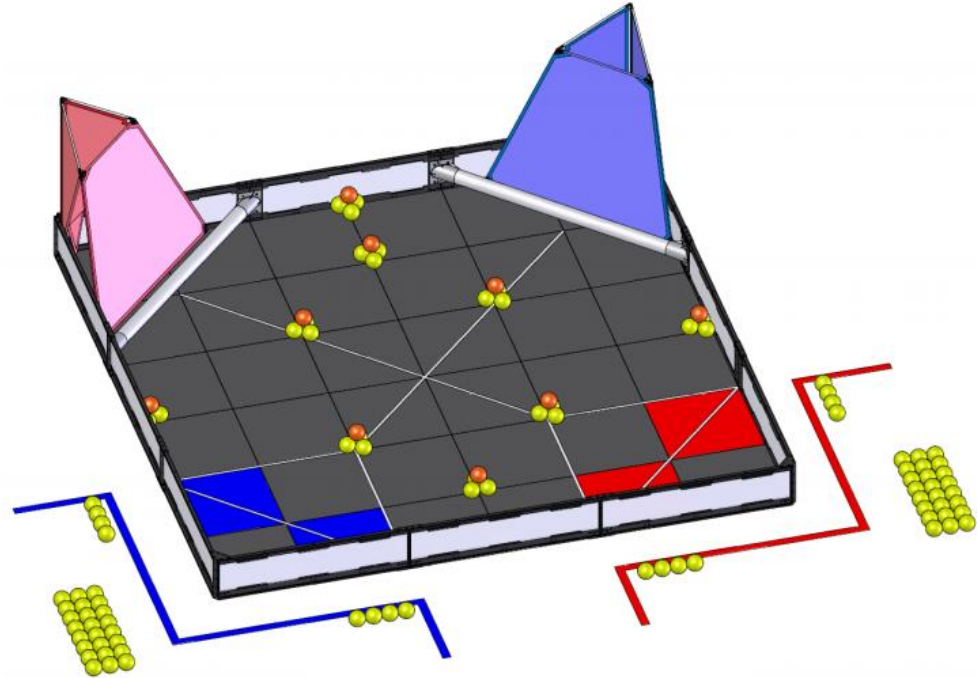


# This Year: VEX Nothing But Net

Robots cannot expand from starting sizes

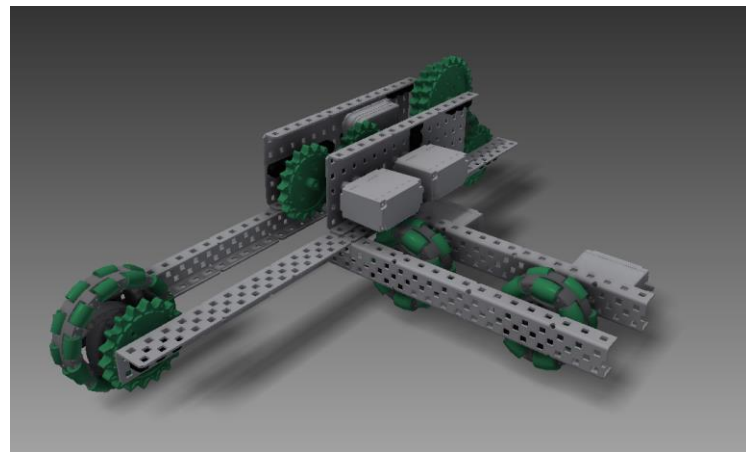
Cross-field launching of balls into net

Have one robot lift the other for bonus points



# The Mechanics Team

CAD design and documentation of robots



Build prototypes for iterative design of launching mechanisms

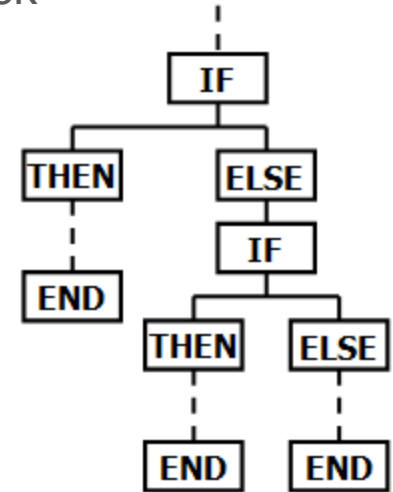
Create functional 3D-printed parts (unlimited # of parts this year!)

# The Software Team

Masters of game strategy, give robots and drivers a plan of attack

Write autonomous scripts for robots to execute

Develop software tools to make prototyping and testing easier

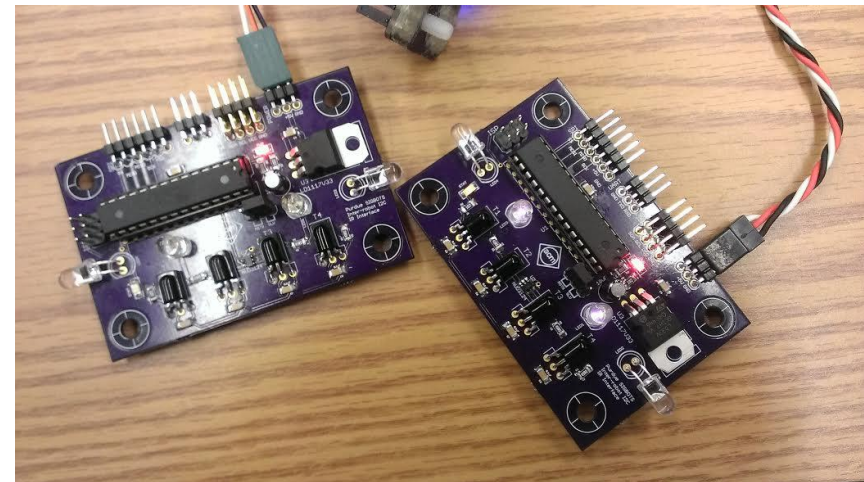


# The Electronics Team

Design custom sensors from the ground up to improve capabilities

Manage cabling on the robots to prevent interference

Use image processing to detect moved objects on the field



# Purdue Robotics Operating System - PROS

Real-time operating system based on FreeRTOS kernel



Built and managed by Purdue students for the entire VEX community

Updating Eclipse plugin to support newer versions of the IDE

# Member Contributions

Subteams are cross-discipline, work on what they enjoy learning

Veterans help teach newcomers  
everything they need to know

This year's focus:

Dynamic autonomy

PCB design

Mechanical launchers

Real-time operating systems

Eclipse plugins



# Passing it on: SIGBOTS 101

Hold lectures for newcomers and underclassmen

Veterans pass down past experiences

Help new members get industry-level experience

Members learn skills they will  
use in the classroom as well



# “How can I help out?”

Love to champion sponsors on our robots, t-shirts, and at competitions

Resources used for:

VEX parts

Custom sensors

Field equipment

Advanced lab equipment

Oscilloscope/Logic Analyzer

3D printer

[jbuschjr@purdue.edu](mailto:jbuschjr@purdue.edu)





siggd

ACM Special Interest Group on Game Development

Lee Anne Opfer, President

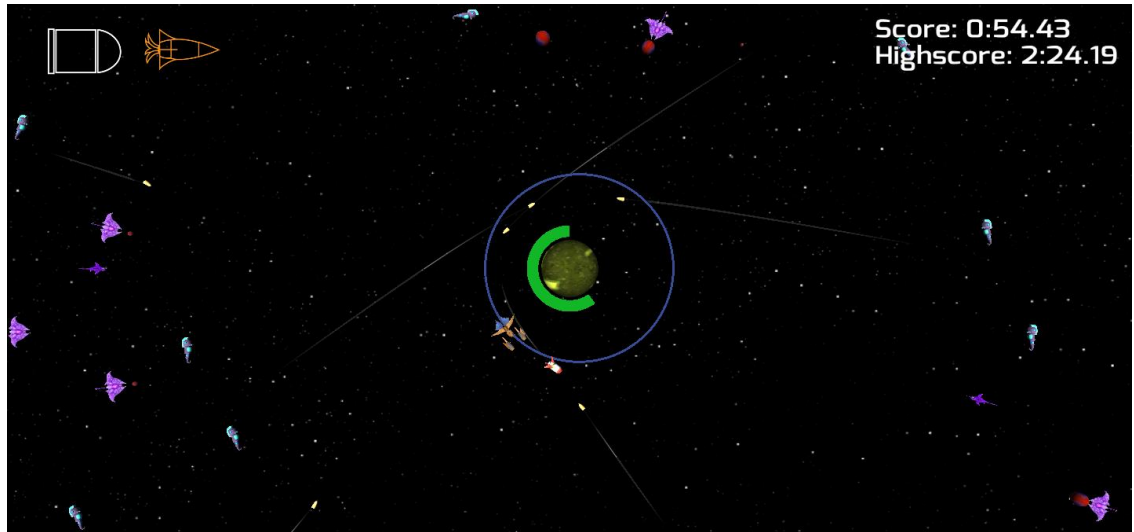
# Who We Are



# Past Projects

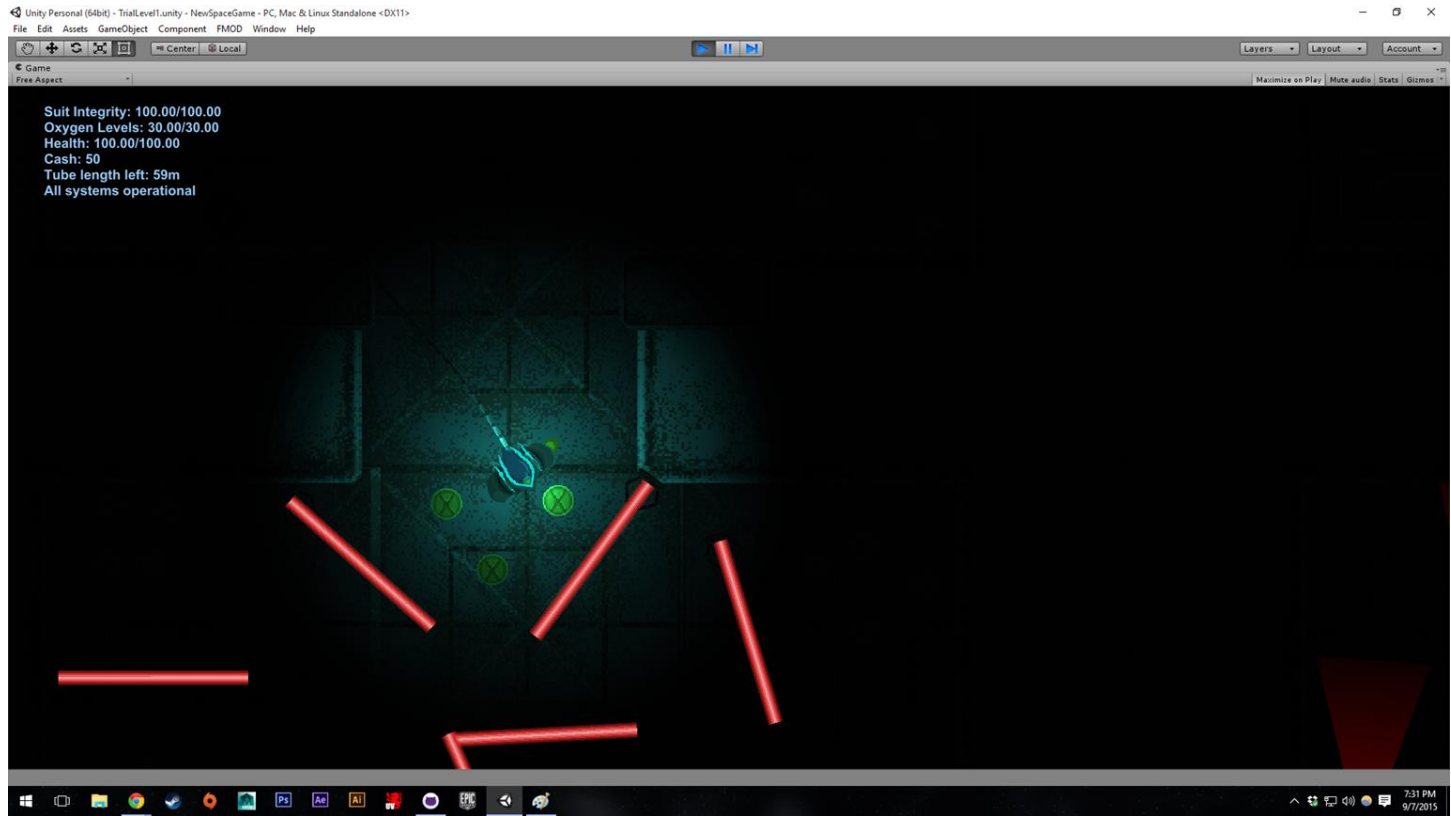


Blob Game



20,000 Leagues Over the Sea

# Current Project



# For the Future



Fall Game Jam - Sept. 25th - 27th

Enter Space Salvage into the 2016 Independent Games Festival

Global Game Jam - Jan. 29th - 31st



# **SIGSAC**

Computer Security



What do we do?

Talk about computer security news and  
do projects

# Current Events

## RISK ASSESSMENT / SECURITY & HACKTIVISM

---

### Ashley Madison hack is not only real, it's worse than we thought

Intimate data for more than 30 million accounts, keys to Windows domain published.

### How Unsafe Was Hillary Clinton's Secret Staff Email System?

[ANDY GREENBERG](#) SECURITY 07.21.15 6:00 AM

## HACKERS REMOTELY KILL A JEEP ON THE HIGHWAY—WITH ME IN IT

### iPhone Arabic Text Bug Can Flatline Apple Macs Too

## The 10 Biggest Revelations From Edward Snowden's Leaks

HACKING TEAM TRIED TO SELL SMARTPHONE VIRUSES TO SOUTH FLORIDA COPS

### How the Stagefright bug changed Android security

*Google's latest security problem might actually make Android safer*

# The Projects

Android



Web



Linux

