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?

How to: Install Linux

Why should I
use Linux?

What is EXT4?
What is SWAP?

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

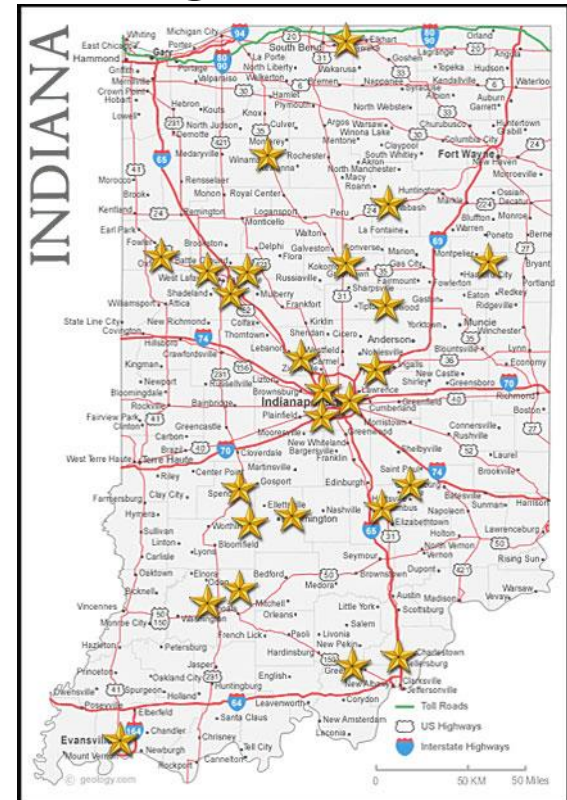# High School Coding Competition

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
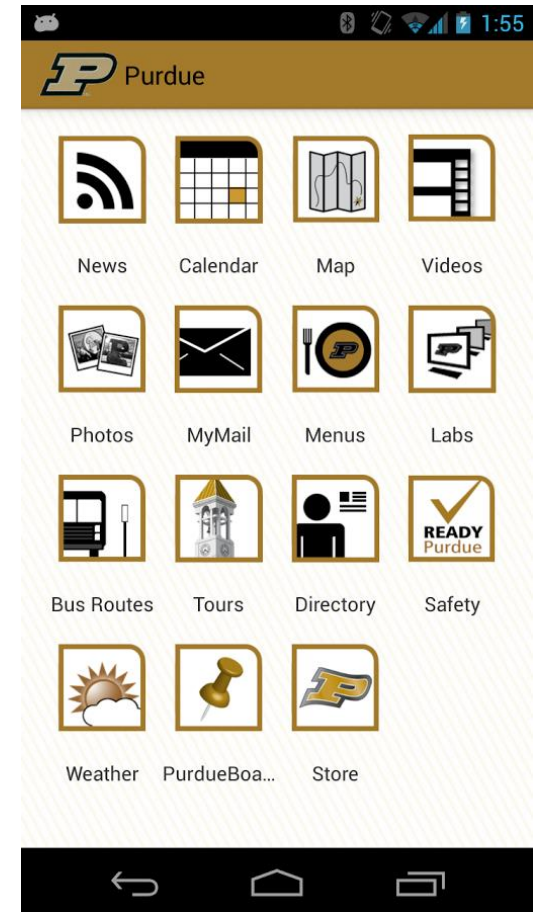
- Focus on….
  - Android
  - Backend
  - Web

Purdue App Today

More native features
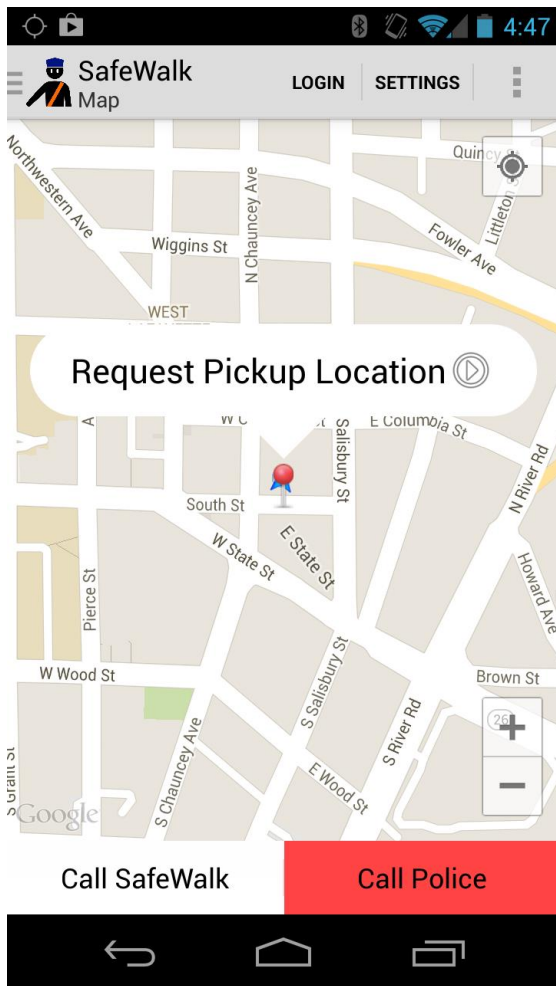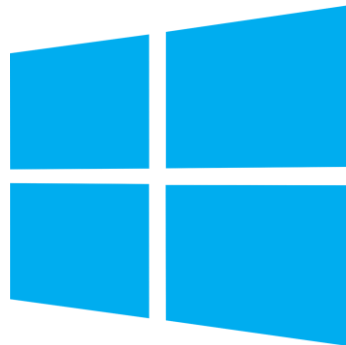Buses
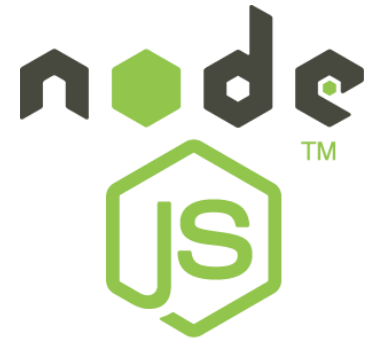Washers and Dryers
Lots of interest from new members

Safewalk Today

Working 1.0
Android, iOS, Backend

New Members

- Many of inexperienced freshmen
- Learning tech talks and tutorials

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

Last Year (Spring): Chess A.I.

MiniMax

Alpha Beta Pruning

Hackathon Competition

This Year (Fall): Snake A.I.

CHALLENGES:

Knowing when to go straight for the fruit, and when to stack off to the side.

Taking into account parts of the snake that are about to expire

Optimizing our algorithms so that our AI can make moves very quickly (at the typical speed of Snake) on larger grids.
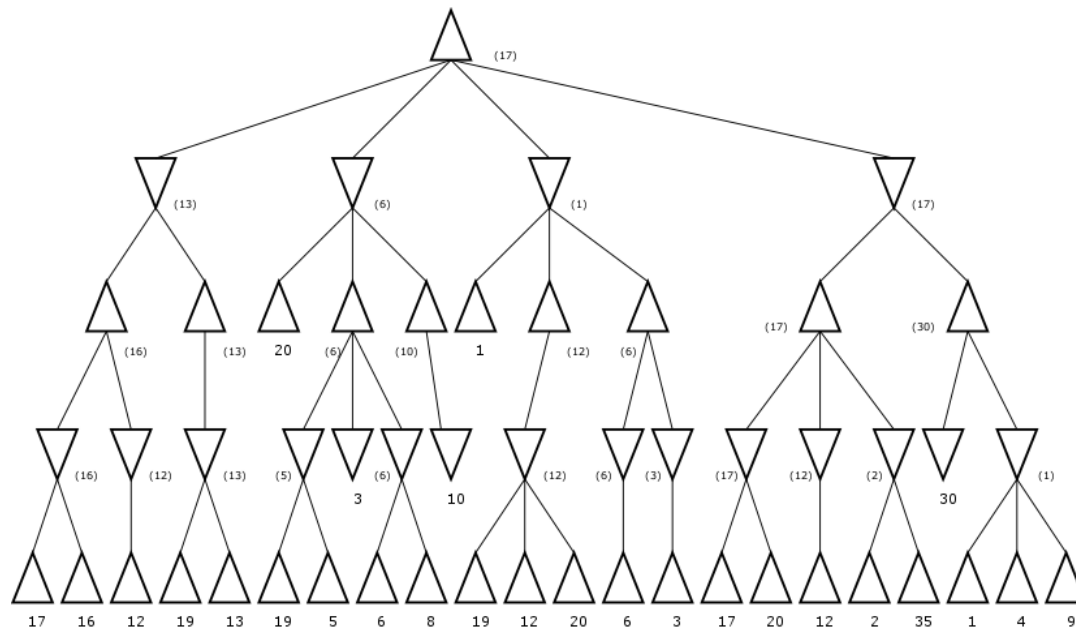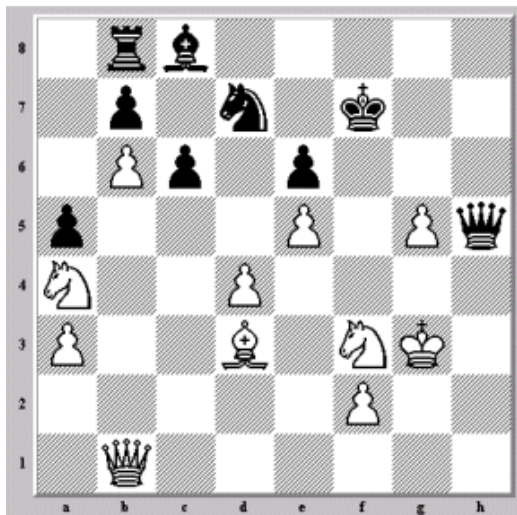
This Year (Spring): Still Deciding

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.
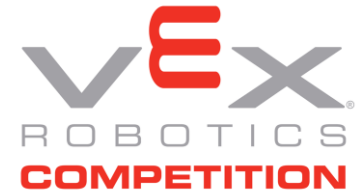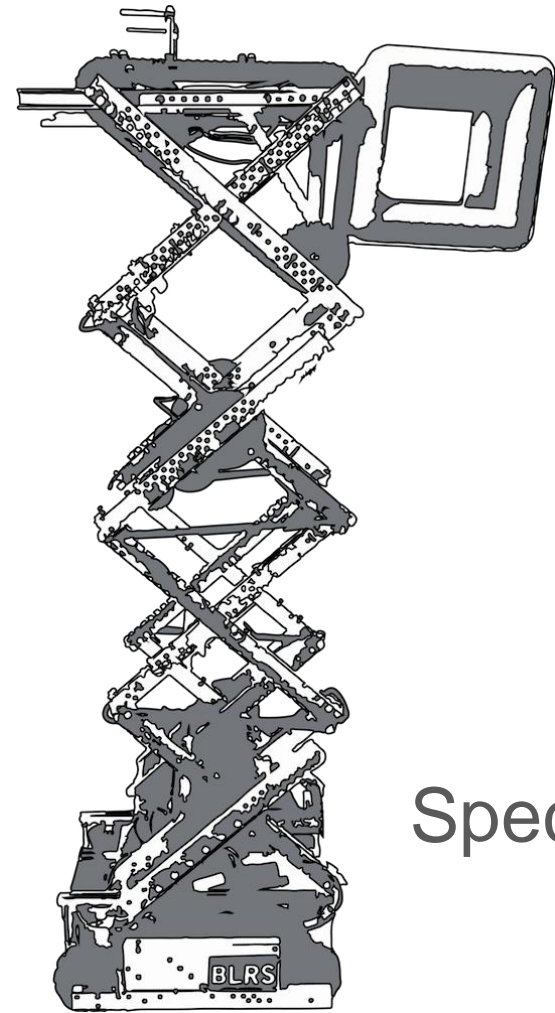
SIGBOTS

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)
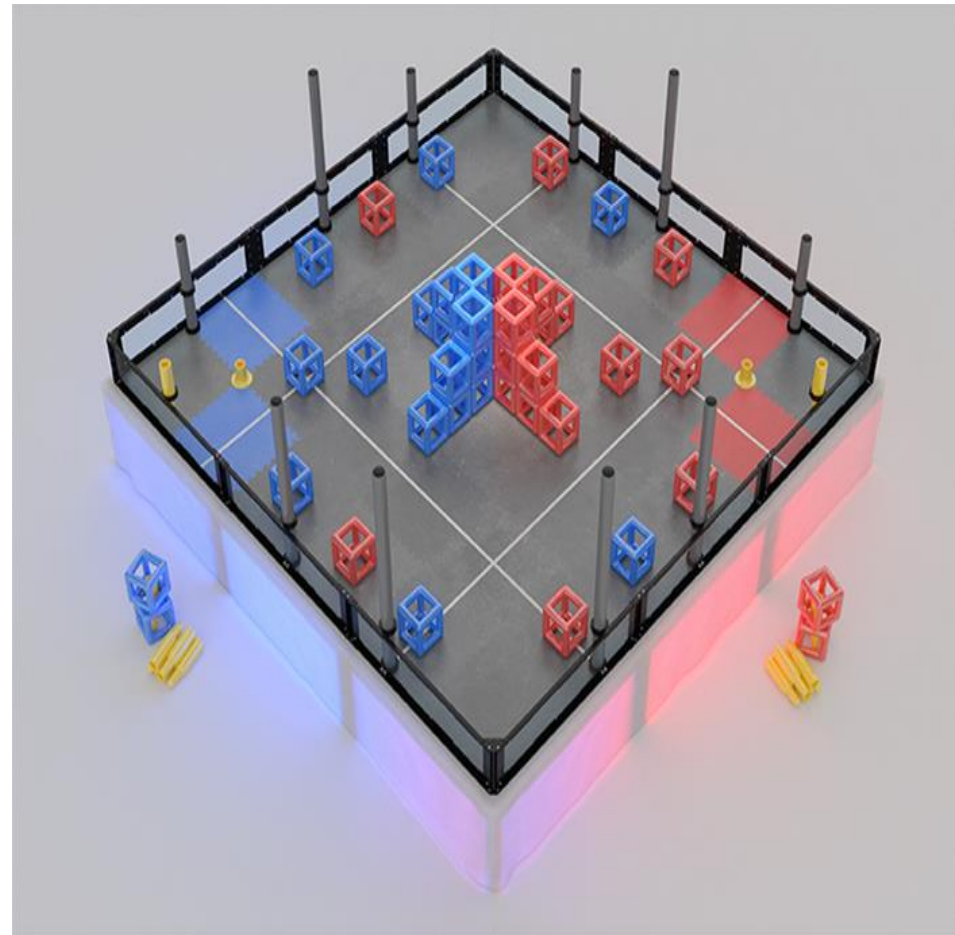
This Year: VEX Nothing But Net

Robots cannot expand from
  starting sizes

Cross-field launching of balls
  into net

Have one robot lift the other for
  bonus points
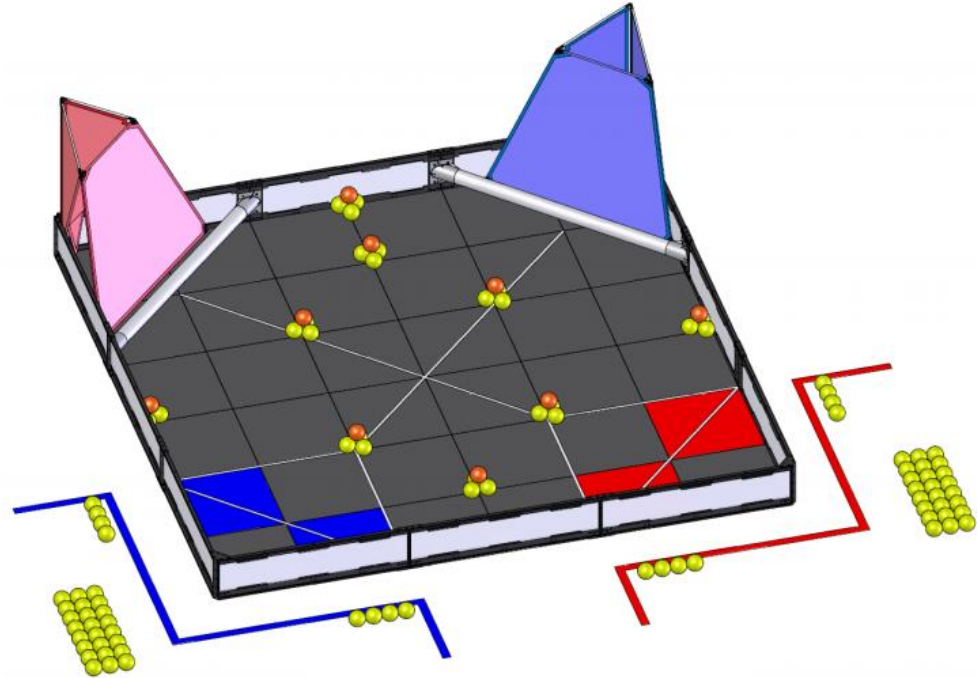
The Mechanics Team

CAD design and documentation of robots
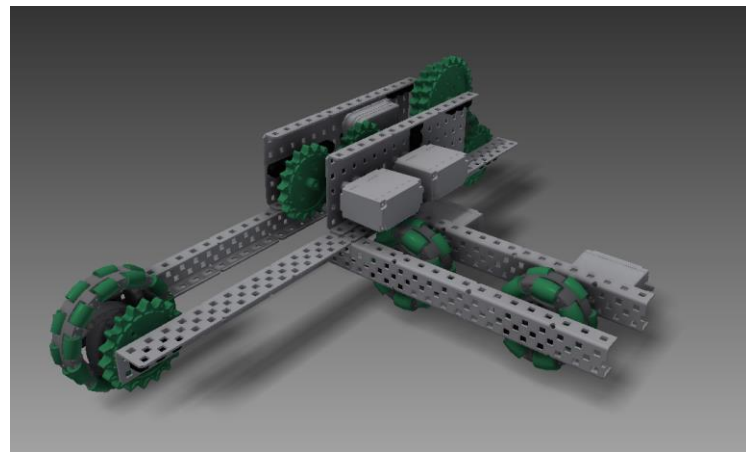
Build prototypes for iterative design of launching mechanisms

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
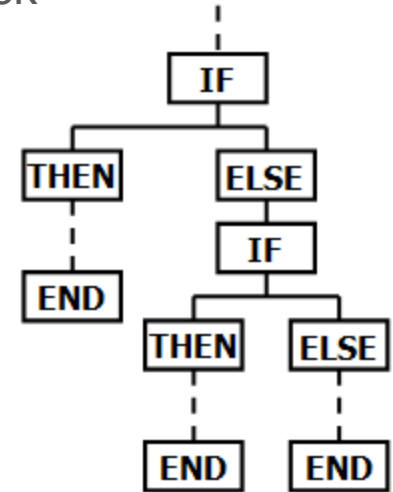
The Electronics Team

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
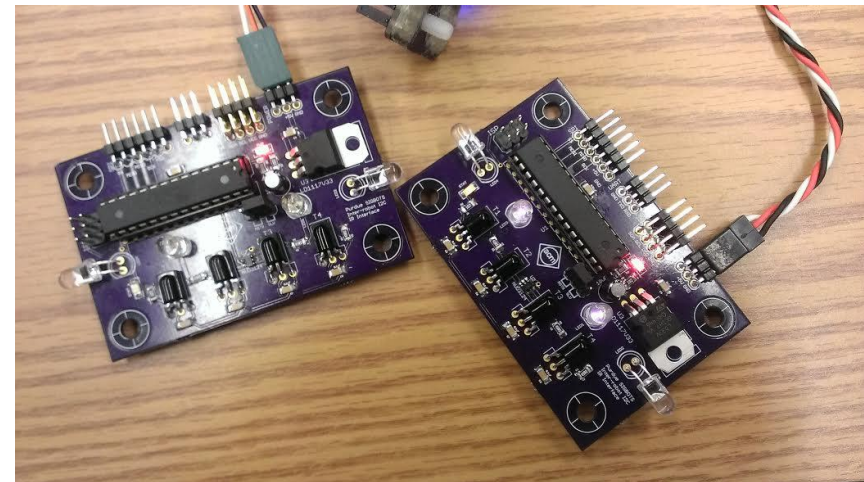
Purdue Robotics Operating System - PROS

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

siggd

ACM Special Interest Group on Game Development
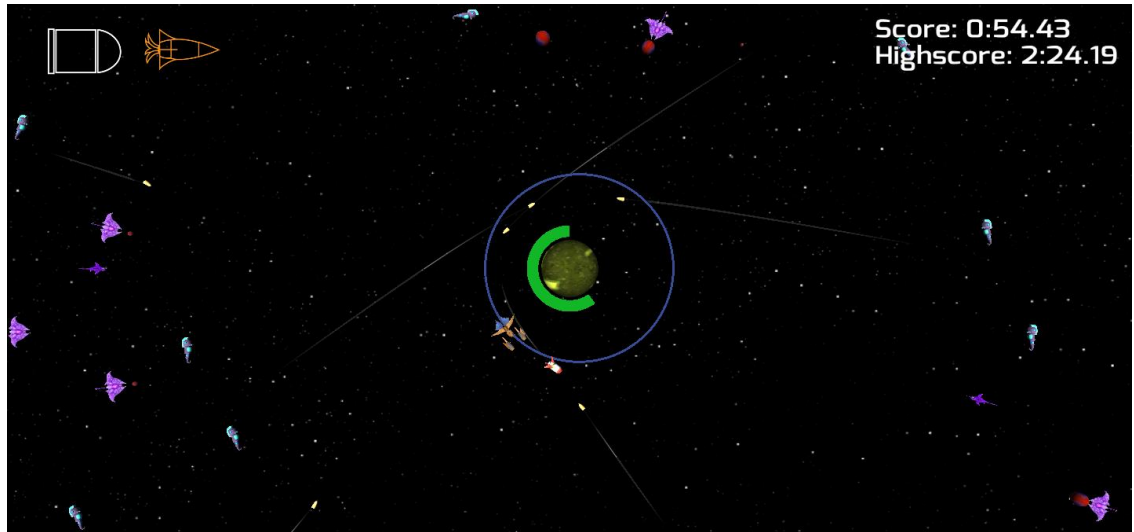
Lee Anne Opfer, President

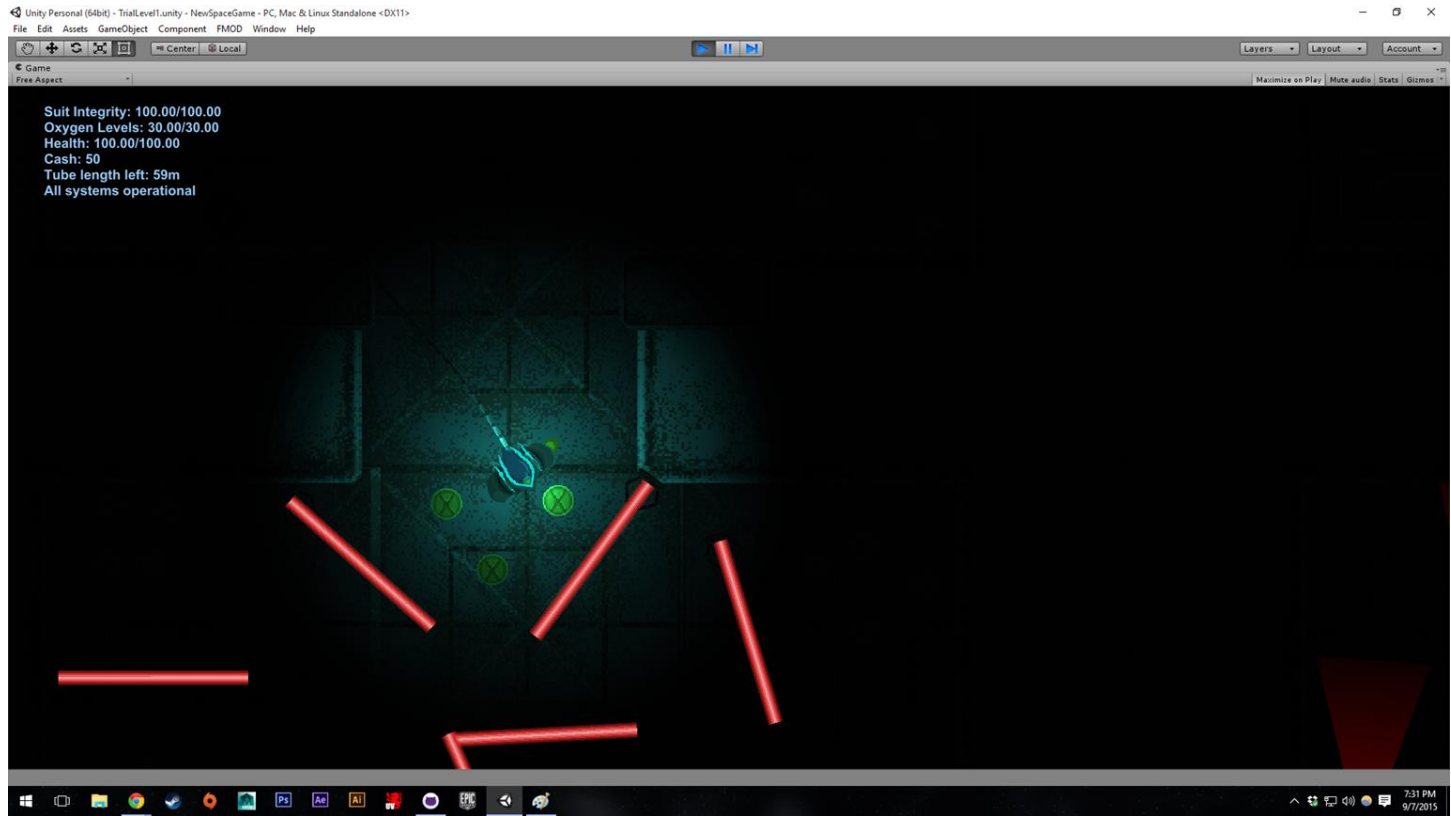# Who We Are

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