Spring 2025 Freshman Cyber Exhibition - Student Information

Event Schedule

`3:00 - 4:00pm` Set up projects ***IESB Rotunda 2nd and 3rd floor***

`4:20 - 4:30pm` Opening ceremonies, *IESB Rotunda*

`4:30 - 5:15pm` Official judging of assigned teams (switch every 15 minutes)

`5:15 - 6:00pm` Open judging

`6:00 - 7:00pm` **Open House: Projects available to non-judges.**

`7:00 - 7:15pm` Presentation of awards, *IESB Rotunda*

`7:15 - 7:45pm` Set down/clean up

Building Layout

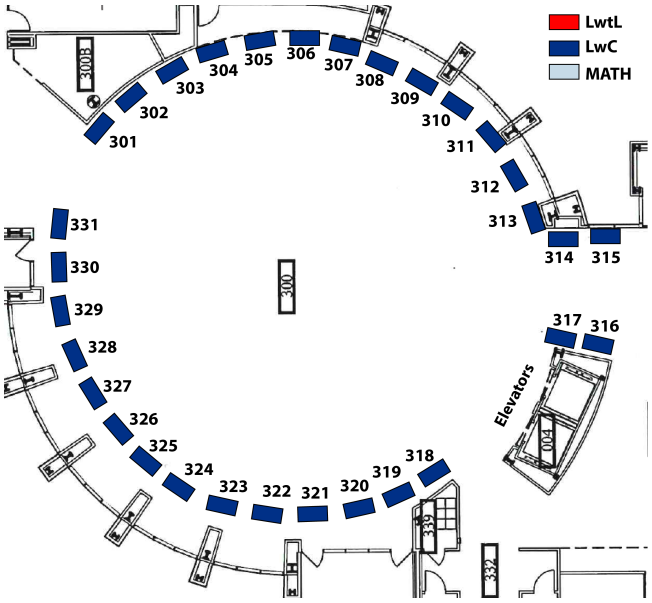

Figure 1: IESB 3rd floor Rotunda – where the CS/CYEN teams (#301-#331) will be located

Team Information

Table	Team Name	Group Members	Time	Judge
301	Controllerless Controller	Shibu Oli,Christian smith, Abhishek silwal	04:30	A
302	Automated Lost and Found System	Jared Newton, Rakesh Kumar Gupta, Damjan Pavlovic	04:45	A
303	Braille Interpreter	Jadon Newton, Alex Orgeron, Nicholas Sanders, Hayden Mersky	05:00	A
304	BidMasters	Caden Fonseca, Sehat Mahde, Shreyastha Banik, Wyatt Blanchard	04:30	B
305	Brewer's Complement	Bradley Duft, Eve Ourso, Colleen Roberts	04:45	B
306	Chroma Cards	Korde Carter, Patrick McNemar, Collin Tucker	05:00	B
307	3D Holographic Audio Visualizer	Yaser Suleiman, Sadiksha Lamsal, Anup Paudel	04:30	C
308	D&D Quick Roll	William Kessler, Xavier McHugh, Andrew Militelo, Melanie Roussel	04:45	C
309	LaundryLens	Jesse Llewellyn, Will J Langley	05:00	C
310	Gesture Control	Ethan Flanagan, Gavin Robichaux, Spencer Smith	04:30	D
311	HeaterBuddie	Bryant Jee, Jason Luke Merritt, Cheyenne Deloney	04:45	D
312	House Hub	Brandt Settoon, Cayden Mckelvey, Jaylon Delton	05:00	D
313	Medicator App	Daniel Austin, John Breaux, Danny Keomahavong	04:30	E
314	Nail Scanner	Aaron Fore, Antonio Hernandez, Austin Brown, Sammy Mai	04:45	E
315	Motion Monitor	Cole Pellegrin, Carter Landry, Edward Ware	05:00	E
316	Second Hand Games	Taylor Czarnecki, Natalie Gates, Kylie Tate	04:30	F
317	Smart Plant Watering System	Quentin Andrew Maese, Ayush Thapa, William Kelly Payne	04:45	F
318	PantryPal	Kate Barron, Ellie Stone, Aayush Kumar KC, Casey Vermillion	05:00	F
319	PawPoint	Jesse Webb, Lauren Phillips, Ashley Lee	04:30	G
320	Ping	Gavin Mace, Braxton Thibodeaux, William Spinks	04:45	G
321	Posture-Pal	Drew Sylve, William Deere, Rajan Yadav, Ryan Skaggs	05:00	G
322	Puzzle Alarm Clock	Jason Roberts, Patrick Farrar	04:30	H
323	SafeHaven	Chingizkhan Yankolov, Jack Columbus Tomlin, Thymmaythy Mean Sok Khou	04:45	H

Table	Team Name	Group Members	Time	Judge
324	RemiCare	Aayusha Khadka, Ashish Ghimire, Joseph Gullegde, Gia Kim Truong	05:00	H
325	Scrizlet	Jayden Needham, Jordan Owens, Austin Phillips	04:30	I
326	Smartank	Caden Duhon Zachary Smith, Shawn Vott	04:45	I
327	Room Radar	Reece Knight, Nico Relle, Jacob Wolfe, Josh Ramachandran	05:00	I
328	Study-Tracker	Dawson Benison, Collin Songy,Nicholas Shelton	04:30	J
329	The B.O.S.S	Ryan Bourge, Logan Brignac, Whitney Jones, Gage Waller	04:45	J
330	TrueSpeed Pixel	Lawson Lerille, Landon Carderara, Adam Young	05:00	J
331	Window Interaction Game	Roderick Jacobs, Mark McGlothen, Gabriel Boudreaux	04:30	K

Project Name:

Controllerless Controller

Group Members:
Shibu Oli, Christian Smith,
Abhishek Silwal

Project Description:
We are creating a wireless controller which reads hand gestures to play games . we are also adding a feature for normal use like controlling the mouse pointer and also wireless keyboard.

Suggested Use/Field:
gaming, entertainment

Project Name:

Automated Lost & Found System

Group Members:
Jared Newton, Rakesh Kumar Gupta,
Damjan Pavlovic

Project Description:
This system streamlines the submission of lost and found items by automatically identifying the item type and its color. If the automated detection is inaccurate, the submitter can manually adjust any field and provide a description of the item. Images are also saved alongside the entry. All submitted data is stored in a searchable database, allowing users to look up lost items and receive notifications when matching items are added.

Suggested Use/Field:
computer vision, automation

Project Name:

Braille Interpreter

Group Members:
Jadon Newton, Alex Orgeron,
Nicholas Sanders, Hayden Mersky

Project Description:
Our project reads printed text and using a webcam and a Raspberry Pi running a text recognition library. It then sends the text to an Arduino, which uses directional servos to drive a pulley & belt system in a 2:1 ratio, resulting in the correct braille letter being displayed on the top face. This allows the blind to read printed text.

Suggested Use/Field:
accessibility, disability accommodation, learning

Project Name:
BidMasters

Group Members:
Caden Fonseca, Sehat Mahde,
Shreyastha Banik, Wyatt Blanchard

Project Description:
BidMasters is a auctioning app that will allow you to create item auctions and bid on other peoples auctions. It will have many features including mystery and silent auctions, and you will be able to view past auctions you've been apart of. As of right now, and for the foreseeable future, the money in the app will be fake.

Suggested Use/Field:
App development, Server hosting, Computer Science, Database creation and management

Project Name:
Brewer's Complement

Group Members:
Bradley Duft, Eve Ourso,
Colleen Roberts

Project Description:
Our project is a coffee scale that implements coffee ratios into a scale to create a perfect cup of coffee. This scale will feature a touchscreen GUI where the user can select what type of coffee they want. The user can make their own template to introduce their own preferences on how strong or light their coffee is.

Suggested Use/Field:
hardware, operating systems, manufacturing

Project Name:
Chroma Cards

Group Members:
Korde Carter, Patrick McNemar,
Collin Tucker

Project Description:
A digital card game that uses physical cards to interact with the game. Scan in cards to add them to your deck and face off against friends!

Suggested Use/Field:
game design, entertainment, competitive

Project Name:

3D Holographic Audio Visualizer

Group Members:

Yaser Suleiman, Sadiksha Lamsal, Anup Paudel

Project Description:

Our project is a real-time 3D holographic music visualizer that reacts dynamically to audio input. Using a Raspberry Pi 400, a USB microphone, a 5” HDMI screen, and an acrylic pyramid, the system creates pseudo-holographic visuals synchronized to music. The user can toggle between multiple visual modes (e.g., bass pulse, ambient waves) through a touchscreen interface integrated into the base of the device. Addressable LED strips further enhance the immersive experience by pulsing with the beat. Designed to be portable and visually striking, the setup blends electronics, software, and design aesthetics to create an affordable alternative to high-end commercial music visualizers.

Suggested Use/Field:

Human-Computer Interaction (HCI), Audio Signal Processing, Embedded Systems, Interactive Art & Design, Real-Time Visualization

Project Name:

D&D Quick Roll

Group Members:

William Kessler, Xavier McHugh, Andrew Militelo, Melanie Roussel

Project Description:

Our project aims to provide players of dice-based games with a way to organize information and roll dice both in person and in the application. This project was designed with two games in mind, D&D and Warhammer, with room for further expansion, however for the sake of presentation we have only completed a D&D example of this application. The main functionality of our application is in an app meant for inputting and storing character sheets within a phone app. The application has an in-app dice rolling software that works by asking the user which dice they want to roll and how many of that type, then using a random number library the software then outputs the rolls as a list which is inputted into the character sheet. The other software in this program does the same thing as the first software but through the use of a webcam and a the doctr.to library to detect number on the faces of the dice and then inputs them into the character sheet

Suggested Use/Field:

gaming, table top games, organization aid

Project Name:

LaundryLens

Group Members:

Jesse Llewellyn, Will J. Langley

Project Description:

LaundryLens is a smart IoT-integrable laundry basket that helps to sort your laundry by autodetecting the color and fabric of what is put into it. It connects to a paired phone app to send the user notifications when any of the baskets are full and reminds the user to do their laundry.

Suggested Use/Field:

IoT, mobile development, React/React Native, Flask

Project Name:
Gesture Control

Group Members:
Ethan Flanagan, Gavin Robichaux, Spencer Smith

Project Description:
Using AI camera tracking, we track the user's hand gestures and use it to turn off or on smart home appliances.

Suggested Use/Field:
Smart home, Machine vision, Artificial Intelligence

Project Name:
HeaterBuddie

Group Members:
Bryant Jee, Jason Luke Merritt, Cheyenne Deloney

Project Description:
HeaterBuddie is a portable, lightweight solution for chilly hands and other heating needs. The device is a flexible, mobile heating pad powered by two 18560 batteries using code uploaded to Arduino IDE. Unlike gloves or handwarmers, which lack precise temperature regulation, the HeaterBuddie enables the user to maintain the warmth of the pad at whatever temperature suits their needs (up to 100°F) using the compatible webpage. The DS18B20 temperature sensor reliably tracks the current temperature of the heating pad, allowing for real-time updates. The HeaterBuddie ensures that it's users will have a comfortable and enjoyable experience adapted to their individual needs.

Suggested Use/Field:
Lifestyle

Project Name:
House Hub

Group Members:
Brandt Settoon, Cayden Mckelvey, Jaylon Delton

Project Description:
A centralized hub for your home that includes a smart calendar that all members of the house can add events and such to through Google Calendar, a clock that can display time in both 12HR and 24HR format, a list of chores for each person in the house, a list of dinner ideas/what's for dinner that day, the temperature of the house, and the weather for the day.

Suggested Use/Field:
Home improvement, organization, quality of life

Project Name:
Medicator App

Group Members:
Daniel Austin, John Breaux,
Danny Keomahavong

Project Description:
The Medicator App is a web application meant to take in user information regarding their medical history, current prescriptions, recent surgeries, and other medically relevant information, save that to patient created accounts, and on one of the personalized pages for the application, a user will be able to enter in any prescription drug into a field and below the user will be able to see recommendations and warnings about the negative side effects of the drug they are going to take with specific insights in how it will affect them with their own medical history and ongoing prescriptions. It will suggest alternative drugs if the prescription drug entered will harm the user. This is meant to lower deaths and health complications from faulty, human made prescriptions that don't factor in all of the patient's health information. All of the information regarding the prescription drugs will be extracted from OpenFDA, which has an API specifically for prescription drugs and adverse side effects. This can also be extended to over the counter medication.

Suggested Use/Field:
Doctor’s office visits, Pharmacies

Project Name:
Nail Scanner

Group Members:
Aaron Fore, Antonio Hernandez,
Austin Brown, Sammy Mai

Project Description:
An image scanner that uses AI image detection to pick up trademark signs of various diseases associated with nail health. The user will upload or capture an image of their nail which would be processed and marked with a condition and description.

Suggested Use/Field:
Artificial Intelligence, health

Project Name:
Motion Monitor

Group Members:
Cole Pellegrin, Carter Landry,
Edward Ware

Project Description:
It's a rotating monitor that uses a webcam to provide face tracking info and moves to keep the closest face within a center dead zone.

Suggested Use/Field:
presentation, medical, industrial, entertainment

Project Name:
Second Hand Games

Group Members:
Taylor Czarnecki, Natalie Gates,
Kylie Tate

Project Description:
Second Hand Games is a website focused on the resale of videogames and game consoles. It is built from the ground up using flask, python, html, css, and javascript.

Suggested Use/Field:
Games, Market-place

Project Name:
Smart Plant Watering System

Group Members:
Quentin Andrew Maese, Ayush Thapa,
William Kelly Payne

Project Description:
Our project, as name suggests, is basically a system that detects the moisture level of soil and if the moisture level is below certain threshold (it is calculated by soil moisture sensor), the system automatically waters the plant through water pump. Also, if the user doesn't want to do it automatically, the system also have a manual button to manually water the plant. The system also have a LED system to indicate the status of soil (green=wet, red=dry, blue= currently watering) This system basically makes the life of people with plants in their house easy.

Suggested Use/Field:
agriculture, home gardening, industrial applications

Project Name:
PantryPal

Group Members:
Kate Barron, Ellie Stone,
Aayush Kumar KC, Casey Vermillion

Project Description:
PantryPal is a smart pantry management system designed to help users efficiently track their groceries, reduce food waste, and simplify meal planning. Built using Flask, HTML, JavaScript, and Tailwind CSS, the app allows users to add items manually or via barcode scanning, which fetches item details from the Open Food Facts API. Each item is saved to a local data.json file and displayed dynamically on the interface with category, name, and expiration date. Users can delete items easily and sort their list for better organization. The app features a functional login/register system and a recipe generator that uses current inventory to suggest meals via an external recipe API. PantryPal aims to empower users with a seamless, proactive tool to manage food inventory and meal choices—ultimately encouraging sustainability and smarter kitchen habits.

Suggested Use/Field:
house-keeping, shopping, food

Project Name:
PawPoint

Group Members:
Jesse Webb, Lauren Phillips,
Ashley Lee

Project Description:
Our freshman design project is a web-based platform designed to help students connect with each other and find important resources on campus. Users can make accounts, add friends, chat, form study groups, and share posts. The platform also offers a personalized calendar where students can track to-do lists, assignments, and upcoming campus events. In addition, the site provides easy access to important information, such as how to register for classes, finding student organizations, finding information about on campus living, meal plans, and more. Our team focused on building a platform that is simple to use and helpful for managing school life while making new connections.

Suggested Use/Field:
web development, software engineering, social networking platform

Project Name:
Ping

Group Members:
Gavin Mace, Braxton Thibodeaux,
William Spinks

Project Description:
Ping uses a Mindwave Mobile 2 to read the user's raw brainwave data on EEG power spectrums, and transits them to the laptop which processes and allows the users concentration to be used as basic inputs for the game Pong where the player plays against an automated bot.

Suggested Use/Field:
gaming, mind control

Project Name:
Posture-Pal

Group Members:
Drew Sylve, William Deere,
Rajan Yadav, Ryan Skaggs

Project Description:
A chair attachment that is meant to improve your posture by telling you when your in good and bad posture.

Suggested Use/Field:
quality-of-life

Project Name:
Puzzle Alarm Clock

Group Members:
Jason Roberts, Patrick Farrar

Project Description:
We are designing a alarm clock that goes off at a set time, then you need to complete a puzzle in order to make it stop.

Suggested Use/Field:
home, quality of life, alarm

Project Name:
SafeHaven

Group Members:
Chingizkhan Nurbolatov Yankolov,
Jack C. Tomlin, Thymmaythy Mean Sok Khou

Project Description:
SafeHaven is a Raspberri Pi based security system that combines sensors (motion and ultrasonic) with a Flask web application for real time monitoring. It detects motion and triggers alarms, storing relevant user data like the history of detections. At the same time, the system sends an alert to the user's phone number, to make sure the users are secure at all times. Designed for home/office security, SafeHaven prioritizes accessibility with its simple GUI and low-cost hardware.

Suggested Use/Field:
Internet of Things (security systems), computer networks (data access), security and mental health

Project Name:
RemiCare

Group Members:
Aayusha Khadka, Ashish Ghimire,
Joseph Gulledge, Gia Kim Truong

Project Description:
RemiCare is a smart wearable watch designed to support children in managing daily routines while ensuring their safety. Tailored for school environments, it enables parents to send scheduled or real-time reminders for tasks like drinking water, staying organized, and following routines. Unlike conventional smartwatches, RemiCare minimizes distractions with discreet, non-intrusive notifications, allowing childrent to stay focused throughout the day.
Equipped with GPS-based location tracking, the device provides parents with accurate, real-time updates on their child's whereabouts. Combining intuitive design, secure data handling, and reliable wireless communication, RemiCare offers a balanced solution that promotes healthy habits and growing independence for children—while giving parents peace of mind through continued, supportive oversight.

Suggested Use/Field:
child safety & monitoring, smart health/wellness, educational/assistive/wearable technology

Project Name:
Scrizlet

Group Members:
Jayden Needham, Jordan Owens,
Austin Phillips

Project Description:
American Sign Language learning and translating device.

Suggested Use/Field:
education

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Project Name:
Smartank

Group Members:
Caden Duhon, Zachary Smith,
Shawn Vott

Project Description:
Our Project is a smart fish tank device that can be attached to any tank. It has multiple features including a temperature sensor, ph. sensor, and an automatic fish feed dispenser, all of which can be controlled from a computer interface with a display screen. It will display our sensor data and have an options menu and our "fishionary" which displays information about the most common species of pet fish, including their preferred ph. and temperature.

Suggested Use/Field:
pet care, automation, information

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Project Name:
Room Radar

Group Members:
Reece Knight, Nico Relle,
Jacob Wolf, Josh Ramachandran

Project Description:
Room Radar is a software we designed with the intent of checking study rooms in the IESB/Wyly tower for availability. A camera will be mounted inside the study room to take pictures periodically which will be processed through the program and update the website accordingly.

Suggested Use/Field:
software engineering

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Project Name:
Study-Tracker

Group Members:
Dawson Benison, Collin Songy,
Nicholas Shelton

Project Description:
A program that uses a camera to monitor a student's face while study. Tracks behavior to determine study performance and then uses that information to recommend better studying habits for future sessions.

Suggested Use/Field:
school, self improvement, utility

Project Name:
The B.O.S.S.

Group Members:
Ryan Bourge, Logan Bridnac,
Whitney Jones, Gage Waller

Project Description:
The B.O.S.S, which stands for bionic orthotic servo system, is a bionic arm designed to assist elbow disarticulation amputees in day to day tasks. This bionic arm will allow for users to make custom grips for repetitive tasks and allow for selection using a small touchscreen on the arm. This system will allow for easy arm manipulation and a very quick learning curve.

Suggested Use/Field:
biomedical, robotics, mechatronics,
computer science

Project Name:
TrueSpeed Pixel

Group Members:
Lawson Lerille, Landon Carderara,
Adam Young

Project Description:
TrueSpeed is a drag race simulator with accurate times and statistics from real cars.

Suggested Use/Field:
video game, simulations

Project Name:
Window Interaction Game

Group Members:
Roderick Jacobs, Mark McGlothen, Gabriel Boudreaux

Project Description:
An interactive program that allows you to use the windows from your computer to interact with each other with simulated physics and other features to enhance your experience.

Suggested Use/Field:
recreation, gaming