



Northeastern University

College of Engineering

The Forty-First ECE Capstone Design Competition

Friday December 5, 2025, Ballroom CSC (Curry Student Center)

- 7:30-8:30** **Judges Breakfast (342 Curry Student Center)**
- 8:30-8:45** **Welcome by Professor Bahram Shafai (ECE Capstone Director), Dean of COE, Gregory Abowd, and Chair of ECE Department, Edmund Yeh, in Ballroom CSC**
- 8:45-9:00** **Air Environment Risk Indicator System (AERIS)**
Muhammadul Ashraf, Cesar de Oleo, Aryash Jain, Adib Khan, Logan Schneider, Abhinav Yarlagadda
- 9:00-9:15** **SkySense: A Multi-Sensor Drone Detection System**
Ishaan Desai, Luke Maroney, Lucas Confalonieri, Kentaro Kasai, Benjamin Wu, Jack Wilmott
- 9:15-9:30** **PT Pal**
Temirlan Nurtayev, Vanessa Guan, Felipe De La Garza, Evan Li, Rachel Barume, Lily Tsahalish
- 9:30-9:45** **Parkinson's Utensil**
Isabella Mor, Jordan Hoffman, Kyle Murrell, Fils Paul, Harrison Seeley, Cameron Whiting
- 9:45-10:00** **Short Break 1**
- 10:00-10:15** **RYDER**
Christopher Swanson, John Bergin, Taina Nieves, Steve Nketiah, Lane White, Steven Lafferty
- 10:15-10:30** **VitalLink: A Wireless System for Continuous Patient Monitoring and Dynamic Triage in Emergency Departments**
Alejandro Baraona, Henry Butler, Edward DeBruyn, Andrew Hartley, Kevin Mei, Stephen Sodipo
- 10:30-10:45** **Point-Based Autonomous Networked Drone Aiming System (PANDAS)**
Patrick Donnelly, Burke Havranek, James Lewis, Ryder Paulson, Shree Singhal, Simon Zhang
- 10:45-11:00** **Underwater Light Fidelity (Li-Fi) Modules**
Tyler Myers, Matthew Rock, Farhad Ibrahimzade, Lilian Miles, Annabel Hammerle, Bryan Pitts
- 11:00-11:15** **Short Break 2**
- 11:15-11:30** **GIANO: Guided Assistive Piano Learning Gloves**
Nikolas Varga, Rahul Sing, Skyla Marie Profita, Ajith George, Celine Habr, Nouriya Al Sumait
- 11:30-11:45** **Pedal-n-Play: Exercise Bike Gamepad**
Grace Boltz, Evan Clifford, Neda Habboosh, Willow Spector, Hubert Chen, Daniel Zhao

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- 11:45-12:00** **ARC²: Augmented Reality Cycling Against Rearview Collisions**
Avery Corbin, Jack Gladowsky, Jude Percy-Allen, Dominick Villamor, Jingpeng Zhang
- 12:00-12:15** **InductiSense: Self-Powered Sensor Network**
Druhi Bhargava, Adityaa Chandna, Leonardo Chen, Vasishtha Malisetty, Haley Pflasterer, Owen Richmond
- 12:15-1:30** **Lunch Break (2nd Floor Suites of CSC)**
- 1:30-1:45** **IR ASL Glove**
Norah Bumrah, Camille Ferrell, Lauren Hutchison, David Noble, Clara Small
- 1:45-2:00** **Autonomous Robotic Collection Bots (ARC)**
Jackson Knapp, Ojasvi Mukkoti, Ananya Kumar, Derek Jackson, Kate Rober, Carlos Rodriguez
- 2:00-2:15** **Autonomous Mine Detection Vehicle (AMDV)**
Edwin Yang, Ronan Hinshaw, Akshaj Sirineni, Luke Sanders, Tarika Selvaraj
- 2:15-2:30** **FirePod: Wildfire Detection System**
Cameron Brown, Charlie Amante, Charlie Lange, Paarth Soni, Trevor Stempien, William Fox
- 2:30-2:45** **Short Break 3**
- 2:45-3:00** **Runway Incursion Monitoring and Alerting System**
Maxwell Boulerville, Maggie Heaney, Tyler Johnson, Andrew Krumpert, Jonah Lefkoff, Jessica Taddeo
- 3:00-3:15** **AquaSentri (Rescue Drone and Wearable System)**
Abhishek Narang, Anthony Ngumah, Rohi Ahn, Ryder Robbins, Steven Lam
- 3:15-3:30** **RFID Tracking System**
Scott Abramson, Harrison Broad, Matthew Friedman, Ephram Jacquin, Christopher Lam, Arnav Mishra, Brandon Walters
- 3:30-4:15** **Judges Deliberation**
- 4:15-4:30** **Award Announcement**
- 4:30-5:00** **Pictures with the Judges**
End of Program 5:00 PM.