Robotics Engineering

AM Session

Unity Hall 243

8:30 am
Opening Remarks

8:45 – 9:00 am
Voice Control of a Hand Exoskeleton for Traumatic Brain Injury Patients with Motor Impairments and Aphasic Speech
Team Members: Connor Gaudette; Matt McGourty; Keenan Segenchuk; Allison Rozear
Advisors: Tess Meier; Christopher Nycz; Yunus Doğan Telliel; Erin Solovey; Haichong Zhang

9:00 – 9:15 am
FASTR – Flexible Articulating Surgical Transoral Robot
Team Members: Chase Beausoleil; Mark Gagliardi; Samay Govani; Cole Parks
Advisors: Stephen Bitar; Loris Fichera; Yuxiang Liu; Haichong Zhang; Yihao Zheng

9:15 – 9:30 am
Robotics Intracardiac Catheter Steering System
Team Members: Megan DeSanty; Isabelle Lachaux; Elizabeth Minor; Rebecca Young
Advisors: Loris Fichera; Shang Gao; Zhenglun Wei;

9:30 – 9:45 am
Automated Control of External Ventricular Drain for Neuro-ICU
Team Members: Matthew Duncan; Yujie Guo; Haotian Liu; Haoran Zhang
Advisor: Christopher Nycz

9:45 – 10:00 am
Augmented Reality Human-Robot Interface for Assisting Robotic Manipulation
Team Members: Tyler Giroux; Justin Kyi; Dimitri Saliba; Alexander Sun; Bryan Tom
Advisors: Jane Li; Koksal Mus

10:00 – 10:15 am
SOPHT: Soft Prosthetic Hand
Team Members: Christina Aube; Jeff Davis; James Doucette
Advisors: Mahdi Agheli; Markus Nemitz; Haichong Zhang

10:15 – 10:30 am
Soft Assistive Robotics for Helping Daily Tasks
Team Members: Luis Aldarondo; Antonios Sevastos; Ethan Weisse; Hannah Zink
Advisors: Berk Calli; Loris Fichera; Cagdas Onal

10:30 – 10:45 am
Progressive Molding of Soft Robots for Ocean Conservation
Team Members: Sara Frunzi; Dilce Oliveira; Owen Rouse
Advisors: Cem Aygün; Markus Nemitz

Unity Hall 400

8:45 am
Opening Remarks

9:00 – 9:15 am
Development of Cube Swarm for Search and Rescue Applications
Team Members: William Albert; Phillip Brush; Benjamin Dodge; Timothy Klein; Andrew McCommon; Jason Rockmael; Dang Tran
Advisors: Greg Lewin; Shubhi Taneja; Reinhold Ludwig
9:15 – 9:30 am
Social Robot for Interactive Play
Team Members: Joseph Balieistiero; Jayson Caissie; Kaley Du; Megan Jacques; Chloe Plasse; K. (V) Valery
Advisors: Rose Bohrer; Jane Li

9:30 – 9:45 am
LEMUR: Learning and Education of Machine Learning for Undergraduate Robotics
Team Members: Ashe Andrews; Andrew McKeen; Tuomas Pyorre
Advisors: Matt Ahrens; Kevin Leahy; Greg Lewin

9:45 – 10:00 am
Modular Hybrid Flux Motor Development for High Torque Robotics Applications
Team Members: Kaeden Berry; Adam Blanchard; Arturo Lemus
Advisors: Yarkin Doroz; Andre Rosendo

10:00 – 10:15 am
Multi-Robot Persistent Coverage Under Fuel and Stochastic Failure Constraints
Team Members: Camden Cummings; Samara Holmes; Yaşar İdictions
Advisor: Carlo Pinciroli

10:15 – 10:30 am
BranchBot: Autonomous Quadcopter for Branch Attachment
Team Members: Zane Althemer; Keegan Boyle; Cooper Dean; Andrew Kerekohan
Advisors: Dmitry Korkin; Robert Krueger; Oren Mangoubi; Andre Rosendo

10:30 – 10:45 am
Symbiotic Multi-Agent Construction 5.0
Team Members: Genna Brown; Edward Enyedy; Can Güven; Isa Kaplan; Cambria Pomeranz; Isabella Rosenztein
Advisors: Greg Lewin; Carlo Pinciroli; Markus Nemitz

10:45 – 11:00 am
Underwater Filmography Using Robots
Team Members: Riley Blair; Christopher Chow; Gabriel Demanche; Olivia Simon
Advisor: Markus Nemitz

PM Session
Unity Hall 400

1:00 – 1:15 pm
NASA Lunabotics
Team Members: Brendan Byrne; Zeb Carty; Giovanni Giacalone; Kelli Huang; Ian MacInemey; James Nguyen; Terence Tan; Sean Thal
Advisors: Carlo Pinciroli; Ken Stafford

1:15 – 1:30 pm
Trashbot: Autonomous Trach Collecting Robot
Team Members: Liliana Loughlin; Cristobal Rincon Rogers; Matthew Sweeney; Yuhan Wu
Advisors: Neil Rosenberg; Andre Rosendo

1:30 – 1:45 pm
SailBot
Team Members: Mathew Gomes; Erin Murphey; Anthony Virone; Theodore Winter
Advisors: William Michelson; Kenneth Stafford

1:45 – 2:00 pm
BiQu: Bimodal Quadruped Robot
Team Members: Ethan Chandler; Aksayia Jaitly; Yifu Yuan; Puen Xu; Lehong Wang; Tao Zou
Advisors: Mahdi Aghel; Jing Xiao

2:00 – 2:15 pm
Design and Assembly of a 3D Printed Humanoid Robot for At-Home Assistive Care
Team Members: Shivank Gupta; Anna McCusker; Wil Michels; Merel Sutherland
Advisors: Dirk Albrecht; Pradeep Radhakrishnan; Derren Rosbach

2:15 – 2:30 pm
Waste Sorting Robot for Recycling
Team Members: Valerie Childers; Brett Cohen; Dylan Hunt; Nicholas Moyer; Isaac Noble; Gabriel Ward; Lily Wolf
Advisors: Berk Calli; Sarah Jane Wodin-Schwartz
2:30 – 2:45 pm
Advancing Humanoid Robots: Demonstration of Standing and Assisted Walking Alongside a New Simulation Framework
Team Members: Stephen Fanning; Jatin Kohli; Dylan Nguyen; Scott Pena; Jack Rothenberg; Ana Roure
Advisors: Dirk Albrecht; Pradeep Radhakrishnan

2:45 – 3:00 pm
Eve - Agricultural Harvesting Robotic System
Team Members: Soumaya El Mansouri; Lexi Krzywicki; Timothy Rinaldi
Advisors: Berk Calli; Yarkin Doroz; Sarah Wodin-Schwartz

POSTER ONLY
Automated Flying Disc Inventory
Team Members: Benjamin Antupit; Jonathan Whooley; Daniel Ouellette; David Costa; Tristan Andrew; Matthew Adam; Claire Higginson
Advisors: Greg Lewin; Walter Towne

POSTER ONLY
The Design and Prototyping of a Low-Cost & Efficient Ocean Cleanup Robot
Team Members: Gabriel Espinosa; Danny Ngo; Sebastian Valle; Alexander Wadsworth
Advisors: Vincent Aloi; Selcuk Guceri

POSTER ONLY
HURON: Full-size Humanoid Robot (Lower Body)
Team Members: Thai Duc Doan; Sahen Jueja; Nhi Nguyen; Carlos Giralt Ortiz
Advisors: Berk Calli; Mahdi Agheli; Markus Nemitz; Nitin Sanket

3:00 pm
Closing Remarks