From: **Imagine RIT** imagine@rit.edu
Subject: Imagine RIT - Proposal Exhibit Info/Service Request Update
Date: January 15, 2026 at 14:40
To: ht3796@rit.edu

As the primary exhibitor for Imagine RIT, proposal #1590: Robotic Autonomous Cameraperson, you are receiving this email because you or a fellow exhibitor has completed or edited your proposal.

(PLEASE PRINT OR SAVE A COPY OF THIS INFORMATION FOR YOUR RECORDS)

Exhibit Information

Organization: This senior project is conducted under the Department of Software Engineering at RIT.
Working with an advisor/mentor?: Samuel Malachowsky(sponsor), Larry Kiser(project coach)
Full Description: This research project seeks to repurpose the ScorBot ER-4pc and ER-V, an educational robotic arm, into an autonomous robotic cameraperson. While basic videography techniques are well understood, capturing high-quality footage in dynamic environments like classrooms or live presentations requires constant operator attention. The project's goal is to automate camera operations—such as panning, tilting, zooming, and framing subjects—to create more engaging recordings. This project includes the ideation, research, and development of software that integrates machine learning, computer vision, and other technologies to guide camera movements. The previous iteration of this project completed the full control of the ER-V with a basic tracking algorithm and a basic driver for starting to control the ER-4pc without its original controller. Our scope plans to further the research by completing the functionality of the ER-4pc and refactoring the controller to interf ace with both robots simultaneously. We will also be modifying the algorithm to use better framing and videography techniques, as well as working with both camera angles to swap between. Additionally, we plan to refactor existing code in order to increase the maintainability of the system.
Summary Description: We are refurbishing old robotic arms into an autonomous camera system that uses computer vision and object detection to track presenters, adjust shots, and capture engaging footage fully autonomously.
Web Site: https://github.com/talos-rit
Appropriate for all ages?: yes
Age Group Details:
Are you submitting your proposal to be part of the Performing Arts Showcase?: no
Work Completed (or nearly completed): yes
Prior Exibit: This exhibit is exactly the same as one which has been shown before.
Risks: Electricity Hazard (Exposed Circuitry, High Voltage, etc.)
Robots

Risk Description: The exhibit will be entirely handsoff, and the exhibitors are encouraged to not touch or reach into the equipments. There are also going to be active demonstrations during the exhibition in which the exhibitors will be verbally and visually warned of any sudden movements of the equipments.
Planning to create a video submission of your exhibit?: yes

Service Requests

Requesting Gordon Field House or SHED?: no
Gordon Field House or SHED?:
Requested Building Location: Golisano Hall (GOL/070)
Room Number/Floor/Outdoor Location: First floor Golisano Hall
How many members of your exhibit team are deaf or hard-of-hearing, and will need an interpreter to communicate with festival visitors: 0 Does exhibit require a particular environment?: no
Environmental requirements:
Number of draped six-foot tables: 2
Number of plastic folding chairs: 5
Number of devices requiring power plugs: 6
Outlet devices: Local Wifi Router(not connected to the wifi), Laptops(at least two), ER 5 Plus, ER 4u, Large Monitor
Will any of your devices draw more than 5 amps (600 Watts) of power: no
Please tell us which device(s) and how many amps for each device:
Will you need loading dock access to get your exhibit/supplies into the building? no
Does your exhibit need access to the Internet: yes
Can all of your devices use wireless connections: yes
Does your exhibit need a wired connection?: no
Number of wired connected needed?:
Need for wired connection:
Do you plan to show video at your exhibit: no
Will you be conducting any special demonstrations or lectures at your exhibit which are only going to be offered at certain times of day: no
When will these be conducted:
Are you working with any of RIT's global campuses to execute your exhibit: no
Global campus details:
Additional information: There will be a local WiFi router supplied by us that will be used to connect all of our devices in a predictable networked environment. This does not require internet access and will never be connected to the RIT network. If an internet access is required for one of our laptops, the devices will be disconnected from our intranet network to guarantee isolation. We also require semi large space(at least two table size space) for our robots to operate in its full non-overlapping operational range of estimated one table size and an additional table space for displaying our live video footage and extra artifacts from our project.

Important Deadlines

February 2, 2026 - Deadline to submit proposals for placement consideration in the Gordon Field House or SHED.

March 9, 2026 - Deadline to submit all proposals, logistical service requests, and exhibit videos. Proposals submitted by this date will be included in the print program.

March 23, 2026 - Deadline to add/confirm all exhibitors participating in the exhibit.

PLEASE NOTE: All exhibitor profiles must be completed and confirmed by this date. Once you add secondary exhibitors, they will receive an invitation to complete/ confirm their profile. Only confirmed exhibitors are eligible for a free t-shirt and meal voucher. The person who submits the proposal is known as the "Primary Exhibitor". All additional exhibitors participating in the exhibit are none as “secondary exhibitors”

As the Primary Exhibitor, it is your responsibility to coordinate with any secondary exhibitors. Should you have any questions or require further assistance, feel free to contact me at imagine@rit.edu.

Thank you,

Lisa Stein
Executive Director, Special Events & Conferences
Imagine RIT
imagine@rit.edu