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Respondent

20 Kathryn Lee

29:02

Time to complete

1. Date of this semester progress report submission *

Dec 18, 2025

2. Name of project exactly as it was listed in your award letter *

Illini EV Concept EV3

3. Date of original award letter *

11/20/2024

4. Date of expiration listed on award letter (or on scope change approval if more recent) *

Nov 2026

5. How much was your award (i.e., original award plus any approved budget increases)? *

59,935.97

6. How much of your award has been spent to date (in dollars)? *

8966.81

7. Date of forecasted project completion *

Nov 2026

8. Have you submitted one or more semester progress reports previously? *

YES

NO

9. Describe, in detail, what has been completed on the project since the last semester progress report (or since the project commenced if you have not yet submitted a semester progress report)? *

This semester, we are all in on building EV3. Since the start of the semester, we have made huge strides in moving from the design phase into actual production for the mechanical components. We have finished the full CAD for the car body and have completed the fabrication of three composite panels. The CNC machine is now fully set up for our mold making, and we have finalized the mounting points for the suspension and internal electronics. We also finished the layout for the monocoque, specifically mapping out how the wiring will run from the battery through the cabin to the front of the vehicle.

For the electronics and embedded systems, we have completed the design and initial prototyping for several custom PCBs, including the brushed motor controller and a consolidated lighting board. The hardware selection and placement for the rearview camera and blind-spot sensors are finalized, and we have established the wiring requirements to connect these systems to the main cabin display.

Our autonomous team has completed the initial development of the lane detection system and the pathfinding logic within the CARLA simulator. We also finished setting up our server to handle more complex simulation data. Additionally, we have fully implemented a new inventory management system using Excel, which is now being used to track all major components and tools as they arrive for the assembly phase.

10. Describe, in detail, the project's challenges/obstacles since your last semester progress report (or since the project commenced if you have not yet submitted a semester progress report)? *

One of the major challenges we faced this semester was working on retention of older members. We have had quite a few of our major members not on campus this semester due to co-ops, which was a blow to our leadership team. Additionally, the attendance of some of our upperclassmen members has decreased due to increasing workloads on their ends, and without the extra expertise from these members we have definitely struggled in keeping up with our goals; however, we have benefitted from the addition of new members this semester.

Another obstacle we faced was finding a good location for building the body of EV3. In order for the resin to set properly, it needs to dry in a room-temperature environment, and a location large enough with this temperature requirement has been difficult to procure. It also caused a delay in finishing the body while we were deciding where to allow the resin to dry. Eventually, we were able to split up different portions of the body in several temperature-controlled rooms that we had access to.

11. Describe, in detail, the project's successes since your last semester progress report (or since the project commenced if you have not yet submitted a semester progress report)? *

Since the last semester progress report, the project has made strong progress in both execution and team organization, with the most important success being the group's shared commitment to building EV3. This semester marked a clear transition from planning and design into tangible work, alongside noticeable improvements in communication and structure. Nearly every subteam onboarded a significant number of new members, and onboarding was more effective than in previous semesters due to organized workshops that allowed new members to contribute quickly. Communication between subteams also improved through consistent weekly meetings and clearer full-team updates, helping align everyone around shared goals and timelines.

On the technical side, the team made meaningful progress toward vehicle assembly. Mechanical completed the full CAD for the EV3 body and moved into fabrication, producing three composite panels with additional panels in progress, while also bringing the CNC machine fully online for mold making. Key integration decisions, such as suspension mounting, electronics placement, and wiring routes, were finalized, providing a solid foundation for continued assembly. Electrical and Embedded teams progressed from design to prototyping, building custom PCBs parts for EV3 and beginning hands-on work with lighting, motor control, and camera systems. Autonomous continued their work on lane detection and pathfinding in simulation, and Business Operations strengthened support efforts through improved inventory tracking, website development, sponsorship progress, and streamlined purchasing.

12. Did your project have any changes to its team that SSC should know about (e.g., project lead, faculty/staff advisor, departmental financial contact)? *

NOTE: If yes, please complete the SSC Project Contact Information Change Form located at this link: <https://forms.office.com/r/uBjx9nmNpG>

YES

NO

13. Complete and upload the semester financial documentation for your project. You should reflect all expenditures since your last semester project report. We strongly suggest that you also upload supporting financial documentation from Banner for your award CFOP. NOTE: When your project is completed and/or expired (whichever comes first), any remaining project funds will be transferred back to the SSC.

<https://studentengagement.illinois.edu/sites/default/files/2024-09/SSC-Budget-Timeline-SEMESTER-PROGRESS-REPORT-template.xlsx>

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 [EV-Concept-SSC-Budget-Timeline-Fall 2025 Kathryn Lee.xlsx](#)

14. (OPTIONAL FOR SEMESTER REPORT) Upload project marketing and/or media not previously submitted in semester progress reports.

NOTE: Project marketing and/or media must include SSC's logo and/or a statement of which fee(s) funded the project.