Fall 2025 ECE 445 Team Contract

Instructions: The content of this document should be specific to your goals and needs. Ideas for the content of each section are provided as suggestions.

Project No. and Name	**Project 4 - Champaign MTD Bus Tracker Map**
Member Name, netID	Amber Wilt, anwilt2
Member Name, netID	Daniel Vlassov, dvlas2
Member Name, netID	Ziad AlDohaim, ziada2

ECE 445 is a project-based course. The course includes both team and individual grades. Project teammates generally all get the same grade for team assignments based on the expectation that all team members do their fair share of the work involved. The purpose of this contract is to lay out the tasks needed for the successful completion of the project and distribute them in a fair and efficient way to the team members. It will also discuss how the teammates will work together during the project and address any issues that come up. A contract that promotes good teamwork that leads to a successful project should:

- Acknowledge that each team member has commitments and responsibilities outside of ECE 445
- Encourage open communication about challenges that team members are facing, both in and out of ECE 445
- Give team members the benefit of the doubt and the opportunity to explain themselves when something goes wrong and resist jumping to judgement

Project Description: *Short description of project*

Our project is a physical 3D-printed display of the Champaign-Urbana map that uses RGB LEDs to show real-time locations of MTD buses, addressing opposing traditional methods like mobile apps and limited on-site screens. By integrating data from the MTD API, the system updates bus positions every 30 seconds and visually represents routes to help students more easily understand and plan their commutes. The display improves accessibility, eliminates the need for constant phone use, and offers an intuitive, communal way to visualize bus traffic across campus.

Project Goals: *If the team is successful in its purpose, what hardware and software achievements will attest to this?*

- Real-Time Accuracy - the system must be able to display the current bus location with a positional accuracy within 1 minute compared to the actual location
- Visibility and Accessibility - the display will need to be clearly visible and understandable within a distance of 15 feet
- System Reliability - The system must be able to function continuously for 7 days without error or timing issues, requiring no human intervention.

Expectations (ground rules) for each member: *Try to list six or more minimum expectations. Consider aspects such as preparation, participation, feedback, responsiveness, etc. Try to explicitly list anything that could potentially turn into a problem. Find ways to encourage everyone to communicate (this may also fall under "tasks").*

1. **Preparation**: All members are expected to attend meetings having reviewed assigned tasks, schematics, and code.
2. **Participation:** Each member will contribute to both hardware and software components as needed, regardless of personal preference.
3. **Communication:** All communication will take place on a shared text group. Absences or delays should be reported in advance.
4. **Feedback:** Constructive feedback will be given regularly and received without defensiveness. Disagreements will be resolved logically.
5. **Accountability:** No member will allow responsibilities to lapse without reallocation. Missed deadlines will be explained, rescheduled, and planned for in the future.
6. **Documentation:** Each team member will maintain detailed logs of their contributions weekly, including test results and code commits via GitHub.
7. **Punctuality:** All team, lab, and TA meetings must start on time. Late arrival without prior notice is unacceptable.
8. **Conflict Resolution:** Disputes must be brought up during team meetings or via direct message with a mediator.

Roles: *Do you see this team performing well because everyone works together and contributes equally? Are there certain aspects of the project that some teammates excel at? Can tasks be spread among individuals to optimize progress toward the final product?*

Daniel Vlassov: Lead for hardware integration and PCB design

Amber Wilt: System architect and power design lead; coordinates isolation modules and ensures compliance with safety standards.

Ziad AlDohaim: Software lead responsible for cloud API polling, LED mapping algorithms.

Project Meeting Time(s): *The team will meet at the scheduled team meeting with TA each week. Can you also preset an ideal time for team meetings in the lab (your team may need to sign up for lab bench access)? Is your team interested in meeting to work on other aspects of the course together such as project research?*

TA Meetings: Wednesday at 5:30 PM

Internal Lab Work: Wednesdays and Saturdays, 5–8 PM (ECEB Open Lab), subject to availability.

Additional Sessions: Fridays 3–5 PM (Zoom or at CS Building) for progress tracking and decision-making.

Agenda: *Who will set the agenda? Beyond the weekly meetings with the TA, what will the team do to ensure that it stays on track during the semester? When a decision needs to be made, will it be approved by consensus or majority vote? Will a team member be appointed to keep records?*

Set By: Rotates weekly between team members, with responsibility to post the agenda 24 hours prior to meetings.

Tracking Progress: Use a shared Google Sheet with deliverables and deadlines, updated after each meeting.

Decision-Making: All decisions require at least two members' agreement. In case of deadlock, go to TA for opinion.

Documentation: Amber will maintain and update all formal documents unless reassigned.

Process and penalties for dealing with team issues: What happens when ground rules are broken? Who intervenes? What happens if the situation escalates? Always remember not to jump to judgment. Give group members the benefit of the doubt and the opportunity to explain themselves when something first goes wrong. TAs and instructors are available to help resolve issues.

- First violation of ground rules results in a warning and rescheduling of missed work.
- The second violation requires a team meeting to reassign responsibilities.
- Third violation, we'll get the TA involved
- In all cases, members will be given the opportunity to explain their circumstances before any corrective action is taken.

End-of-term agreement on using final peer assessment for grade adjustment: Do you believe that this contract should hold your team accountable to its contents or that it may hold little value? There will be two formal peer assessments this semester. The first is used only to provide honest, constructive feedback to each team member. The second peer assessment affects a teammate's grade. Without accountability, many promises go by the wayside.

The team agrees that this contract is binding for accountability and transparency. The final peer assessment should reflect the contributions, reliability, and integrity of each member. If a team member fails to meet the expectations documented here without legitimate justification, their project grade should be adjusted accordingly.

Signatures: Iterate on this document until everyone is comfortable with its contents and signs (it is okay to type your printed name as your digital signature).

I affirm that I participated in generating this team charter and that I will abide by its contents to the best of my ability. Furthermore, I understand that failure to meet the expectations expressed here can lead to the stated consequences.

netID: ziada2	(digital) Signature: Ziad AlDohaim	Date: 09/19/2025
netID: __anwilt2_____	(digital) Signature: Amber Wilt	Date: 09/19/25
netID: dvlas2	(digital) Signature: Daniel Vlassov	Date: 09/19/2025