

Fall 2023 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	Team 16: ChipCaddy
Member Name, netID	Anish Rajesh, rajesh4
Member Name, netID	Justin Wang, jmwang5
Member Name, netID	Marvin Camras, mcamras2

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 judgment.

Project Description:

Our project aims to be a home poker game solution, reducing the amount of wasted time sorting, organizing, and counting poker chips. The device will utilize an RGB color sensor to detect the value of each chip. It will then organize each chip into stacks based on their values, using servo

motors, and count and display the value of the pot on an LCD display. Once the hand is over, the device will dispense the chips to the winner(s) and reset the count to 0.

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

The main goal of our project is to be able to sort, count and dispense poker chips at an efficient rate. From a hardware perspective we would need a fully functional PCB that is able to power our microcontroller and the rest of our contraption including the various motors. From a software perspective, this project is fairly simple. We simply need to code the logic to make our contraption display the corresponding value and organize their chips based on information relayed from the color sensor. This should be fairly trivial and consist of a series of conditional statements.

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.) Group Members regularly meet on a set schedule.
- 2.) Strong communication is maintained.
- 3.) We give valuable and constructive feedback to one another.
- 4.) Everyone participates and contributes to the project. In the case that one member has extensive “other” work in a particular week another group member will take up this share and in return the other group member will do more work the next week. Using this tactic everyone should do an equal amount by the end of the project.
- 5.) Stay prepared and ready to meet all deadlines for work.
- 6.) Make all project decisions together with consensus agreement.

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?*

This group is more than capable of performing well because even in the work we have done so far, we all try our best to each contribute and split the load. We will analyze each other's strengths and weaknesses in order to best delegate the tasks for each member and this will ensure that our project will be worked on in the most optimal fashion. All of us are EE by background so most of our strong suit is hardware based, we plan on putting our heads together for the software component.

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?*

Besides the scheduled meeting with the TA, We have agreed that we will meet every Tuesday from 4 to 6 pm to work on our project for this course. We will also discuss the timing amongst each other when we need to sign up for lab bench access. If needed we would coordinate time for project research amongst ourselves in our group chat.

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?*

This is one of 3 to 4 major classes for all of us, so we all take it seriously. There doesn't need to be a designated team member to hold ourselves accountable, since we are capable of keeping track of deadlines. Beyond our weekly TA meetings we agreed to meet as a group to work on our project at 4-6 on Tuesdays since we are already free at that time. When a decision does need to be made it will most likely always come to a consensus vote following having an open discussion about each member's opinions.

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.

We believe three strikes is a good benchmark for all team members. We understand that as life takes its course, hiccups happen. There doesn't need to be a designated person that intervenes but we are all adults and well-equipped to call each other out if a fair share of work isn't being completed on time. Following the three strikes we will consult TAs for assistance, but it more than likely will not get to that point.

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.

This contract should be enough to hold the team accountable, but more than anything else, as students at a top engineering school, we hold ourselves accountable. We are excited to carry out this project and want to produce the best body of work for ourselves and for the letter grade that reflects our achievements at the end of the semester.

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: mcamras2	(digital) Signature: Marvin Camras	Date: 9/14/23
netID: rajesh4	(digital) Signature: Anish Rajesh	Date: 9/14/23
netID: jmwang5	(digital) Signature: Justin Wang	Date: 9/14/23

