# **Spring 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** | **#7 Electronic Page Turner** |
| --- | --- |
| Member Name, netID | Adia Radecka, aradec2 |
| Member Name, netID | Alyssa Bradshaw, akb5 |
| Member Name, netID | Javi Cardenas, jcarde28 |

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 team aims to create a hands-free electronic page turner that functions with a foot pedal. The device will use a dual switch foot pedal so that a page can be turned in both directions. When the foot pedal is pressed, the control system communicates with the motors to begin turning a page. A paper safe adhesive, attached to a motor, will be used to lift up a single page at a time. Next, the page will be turned over by a rod sweeping underneath. This system and motion will be reused for turning a page both forwards and backwards. Our solution is unique because the device does not require extensive setup and can turn through all the pages in a physical book, both forwards and backwards.

**Project Goals:**

The primary goal of this project is to be able to make a hands-free device that can turn a page in a physical book. Some hardware achievements to attest for this will be an AC to DC converter and a voltage regulator to deliver the correct amount of power to the motors, microcontroller, and foot pedals. The primary software achievement will be programming the motors such that one motor precisely lifts a single page vertically and soon after the swiping motor flips the page. If we are able to achieve our primary goal we would like to add additional sensors. For example using a microphone to be able to communicate when the device should flip a page.

**Expectations (ground rules) for each member:**

* *Attend the weekly meetings on Tuesday and Thursday*
* *Have your tasks completed by the Thursday deadline*
* *Communicate with the team at least two days before the deadline if trouble arises*
* *Come to the weekly meetings prepared with any questions for TA’s or the rest of the group*
* *Be aware of any emails/notifications from the TA or team members and respond promptly*
* *Be aware of any upcoming deadlines by checking the team and class calendar regularly*
* *Make sure to plan around other class deadlines when possible and communicate with team members when another deadline interferes with ECE 445*

**Roles:**

We see this team performing well because everyone will contribute equally. Additionally, we will all contribute to group assignments such as the design document, final report, etc. We have assigned more specific aspects of our project below:

Adia - Designing the PCB and keeping the team on track by setting the weekly agenda

Alyssa - Working on any additional hardware required such as the voltage regulator and AC-DC converter

Javi - Programing the microcontroller for the sensors and motors to communicate with one another

**Project Meeting Time(s):**

Weekly group meetings will be held on Tuesdays and Thursdays at 3:00-4:00 PM in the lab to work on the project. The TA meetings are on Tuesdays from 4:00-4:30 PM. We will also meet on Wednesdays 12:00-1:00 PM to work on reports, presentations, and any group assignments.

**Agenda:**

Adia will be in charge of setting the agenda for the week and will be the primary record keeper. At our weekly meetings, we will review everyone’s individual progress and any blockers that someone may have with their tasks. We will also go over the tasks that need to be completed for the following week. If a decision needs to be made we will talk through it as a group and make a decision as a consensus.

**Process and penalties for dealing with team issues:**

When a ground rule is first broken, we will set up a team meeting to discuss why the rule was broken. This team meeting will give us a chance to resolve the issue amongst ourselves and to reconvene to make sure we are all on the same page. After two ground rules are broken, for every following broken rule, 10 points will be deducted from the second peer assessment (out of 40) at the end of the semester. If this does not resolve the issue we will reach out to our TA for help. If the problem continues to persist we will also reach out to our professor.

**End-of-term agreement on using final peer assessment for grade adjustment:**

As a team we believe that this contract will hold every team member accountable to its contents. The first formal peer assessment, which is not for a grade, will be an opportunity to provide constructive feedback to each team member. As stated above, “After two ground rules are broken, for every following broken rule, 10 points will be deducted from the second peer assessment (out of 40) at the end of the semester.”

**Signatures:**



*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: aradec2 (digital) Signature: Adia Radecka Date: 02/24/23

netID: akb5 (digital) Signature: Alyssa Bradshaw Date: 02/24/23

netID: jcarde28 (digital) Signature: Javi Cardenas Date: 02/24/23