

Fall 2025 ECE 445 Team Contract

Project No. and Name	Project #16 Antweight Battlebot - Blade Blade
Member Name, netID	Jack Tipping, jacket2
Member Name, netID	Samuel Paone, spaone2
Member Name, netID	Patrick Mugg, pmugg2

Project Description: Our project is a lightweight battlebot consisting of a horizontal saw blade that can both spin and lift up and down, allowing us to switch our attack mechanism based on the opponent in battle.

Project Goals: The goal is to make a bot that has acceleration and steering capabilities, and controllable saw blade speed and vertical position through a laptop app that communicates with the bot through Bluetooth. The bot will consist of a chassis that holds a microcontroller that communicates with the motors to control their speed.

Expectations (ground rules) for each member (listed below):

- *Come to meetings with necessary supplies and a notebook*
- Everyone should contribute to every assignment
- We should all communicate what our strengths are so that we can effectively distribute work
- Everyone should hold each other accountable to do their best and apply effort to all parts of the project
- Everyone should communicate their schedule each week ahead of time so team can gage best approach to task distribution

- Each team member should keep their journal very up to date not only for their respective grade, but also so that others can easily understand work they previously did in case someone else plans to iterate on what they did

Roles: One drawback of our group, that also has its benefits, is our lack of experience in some of the things we plan to implement. Patrick's background has a physics focus, Jack's background has a CompArch focus and Sam's focus has mostly been in software. However, it makes it easy to delegate tasks since for most we all have the same baseline knowledge (maybe the only task that will be pushed on someone is the bluetooth connectivity as Sam has the most software experience). So, delegation will mostly just be done based on who's schedule best matches the project sub deadlines (both described by course and described by us).

Project Meeting Time(s): The team has a weekly meeting scheduled with a TA at 1 PM on Tuesdays. Outside of this, we will schedule different times weekly based on availability, as we can communicate to plan ahead.

Agenda: The agenda for the semester should first be to buy necessary components and test them to make sure power dissipation is correct throughout the circuit and everything can turn on together. After making sure the components all work together, we must design a PCB to connect all of the components. From our PCB design, we can design a chassis to hold all of the components using the dimensions of all of them. Once the PCB arrives, we can solder everything together and the bot should work as intended.

Process and penalties for dealing with team issues: As mentioned above in Roles, work distribution will be done very case by case and as a result it should be easy to keep accountability. The first issue, we'll just ask for some communication as to why someone didn't do what they were expected. After a few first occurrences we may have to raise the severity out of respect to the team contract and out of respect to the person so they know that they are on track to not receive a very positive teammate review.

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. Yes

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: jacket2_____

(digital) Signature: Jack Tipping
Date: 9/19/2025

netID: pmugg2_____

(digital) Signature: Patrick Mugg
Date: 9/19/2025

netID: spaone2_____

(digital) Signature: Sam Paone
Date: 9/19/2025