

Executive Project Summary

For many people, unwanted weeds grow very commonly in spaces such as driveways, sidewalks and even cracks in the roads. It can be difficult or time consuming to manually kill each and every weed growing in undesired places. This project will make that much easier, it will get rid of all the weeds in a very environmentally friendly way by electrocuting the weeds to kill them using a probe.

After contact between the probe and the plant, the current flowing out of the system will cause the plant to naturally resist, which will cause the water inside to boil, therefore killing the plant.

The project will be using a probe that would electrocute weeds using a high voltage that is stepped up using a transformer. Its main power source would be a power supply, then stepped up using a voltage booster. It should have sensors that will read the data which will then be sent automatically to the user. The developers are in charge of building the device and coding it if needed, and the project partner will give feedback, and specific requirements.

The project developers will update the project partner with bi-weekly progress videos that include all the work that has been done so far by each individual, as well as all designs and prototypes developed. The partner will give feedback and instructions as desired.

The project developers need to have a solid timeline to stay on track with their progress, all deadlines need to be determined as follows:

Term	Progress
Fall	• Learn project scope. • Finish all research about the system, the plants and start making plans on building the system. • Create a block diagram with 3 blocks for each group member. • Start individual work on blocks. • Grow plants for the testing process • Make a 30 minute presentation
Winter	• Start building the system. • Start the testing process. • Make adjustments as required. • Create a project poster for the Ece44x class.
Spring	• Finalizing the system. • Final Testing • Finishing the project website. • Making a summary video.

The final product is a system that should kill the weeds by electrocuting them using a handheld probe. It should have enough power to do so through all weather conditions, and should be designed in a way that can later on be added into a small automated system such as a vacuum robot.