

Build a Paper Shredder | Paper Recycling Challenge

A lot of paper is consumed in a school which ends up in waste bins or is handed over to scrap dealers which further leads to wastage of energy in transporting paper waste. What if a recycling system is in place in the school itself so that both paper waste and costs can be reduced together.

Aligning with SDG 12 of Responsible Consumption and Production, here is a challenge for school students to become responsible consumers of the most used commodity in education i.e. Paper.



Introduction

The challenge expects students to help their school reduce paper waste by designing and building a Full Scale Automated Paper Shredder Machine. Once built, install the machine in your school campus and bring it to real use.

Prizes

1. Best 3 Paper Shredder Machines (with overall top scores) will be awarded with a **Certificate of Achievement, Arduino Plug and Make Kit , Makerbazar Shopping**

Voucher, Goodie Bag, Promotion of your Project on Arduino and Makerbazar social media handles.

2. 1 Paper Shredder Machine with most advanced features (with top score in Engineering Criteria) will be awarded with a **Certificate of Achievement, Arduino UNO EK (एक) R4 Wifi Board, Makerbazar Shopping Voucher, Goodie Bag, Promotion of your Project on Arduino and Makerbazar social media handles.**
3. 1 Paper Shredder Machine with most popular social media post (with top score in Demonstration Criteria) will be awarded with a **Certificate of Achievement, Arduino UNO EK (एक) R4 Wifi Board, Makerbazar Shopping Voucher, Goodie Bag, Promotion of your Project on Arduino and Makerbazar social media handles.**
4. 1 Paper Shredder Machine with most aesthetic design (with top score in Design Criteria) will be awarded with a **Certificate of Achievement, Arduino UNO EK (एक) R4 Wifi Board, Makerbazar Shopping Voucher, Goodie Bag, Promotion of your Project on Arduino and Makerbazar social media handles.**
5. All participants will receive digital and physical certificates.

Note: All prizes will be shipped to school's address

Scoring

Sr.No.	Criteria	Description	Score
1	Research	Estimate the amount of paper consumed and used in your school every year in various forms i.e. text books, not books etc and present the stats in your final pitch.	10
2	Idea	Based on your school scenario, ideate an automatics paper shredder machine that has advanced features like auto start/stop etc.	15
3	Design	Build a durable, easy to use and large capacity machine which can be actually put to use in your school and requires minimum maintenance.	25
4	Engineering	Use basic to advance engineering tools like electronics, 3D Printing, Metal Fabrication, Arduino etc. in your machine	30
5	Demonstration	Make a short 1 min video demonstrating the working of your Paper Shredder and promote it on various social media platforms. Receive responses in the form of likes and shares.	20

Rules

1. Open for school students only.
2. Maximum 2 entries from each school.

3. Maximum 5 members in a team including 1 mentor. Mentor is mandatory.
4. Sharing demo video on social media tagging [Makerbazar.in](https://makerbazar.in) and Arduino.
 - a. Arduino Handles: [Fb](#), [lg](#), [In](#)
 - b. Makerbazar Handles: [Fb](#), [lg](#), [In](#)
5. It is mandatory to use Original Arduino Boards for building the machine. It should be evident in the demonstration video. Find out vast variety of Arduino Boards here: [Click link](#)

Guidelines

1. **Create Team:** After signing up on edu.makerbazar.in and start submitting your entry. Submission form link: [Click here](#)
2. **Research:** To better represent your research, it is suggested to use one or more graphic charts focussing on data related to paper consumption. You may categorize data by various users (eg. students, teachers and admin) or formats (eg. textbooks, notebooks, logbooks etc.). Also try to provide an estimate of how many sheets of paper go to waste in your school, both used and unused.
3. **Get Materials:** After ideating your Paper Shredder Machine, you may use the following format to plan & budget your material requirement. You may choose to get your materials from makerbazar.in as well.

S.No.	Item Name	Weblink	Quantity	Cost	Total

4. **Build Prototype:** Refer to varied learning and skilling resources available on <https://docs.arduino.cc/learn/> while building your product.
5. **Shoot a Video:** Use your phone to shoot a 1 min video demonstration. Although it is mandatory to cover features and functionality, also try to briefly mention your research data and why you designed your machine in a certain way.
6. **Post Video:** Post you demo video on all social media platforms preferably LinkedIn, Facebook or instagram and tag your School, Arduino and Makerbazar.
 - a. Arduino Handles: [Fb](#), [lg](#), [In](#)
 - b. Makerbazar Handles: [Fb](#), [lg](#), [In](#)
7. **Create a Picture Presentation:** Show technical details like circuit diagram, sketches, design, graphs and machine pictures
8. **Submit Entry:** To submit your entry go to the challenge page on makerbazar.in and submit your entry. Keep handy your Team Details, Post Link and Presentation Upload.

Contact Details

For any clarifications, feel free to reach out to edu@makerbazar.in