http://www.bing.com/cr?IG=FD0EEE9B84194D2EB5B2DD1FCC8FFFF9&CID=244641BBAC1A657A19454B69ADDA6493&rd=1&h=xVWk5nQ-mbReWmt-7Fx-Nagyl\_q1WX2oeInUzvlVBb0&v=1&r=http%3a%2f%2fblog.honeyfeed.fm%2ftop-10-mecha-anime-movies-best-recommendations%2f&p=DevEx,5030.1

ABOUT US

We are a group of 25 automobile fanatics from SRM University, Chennai. We promote electric mobility for future generations. The Elecruisers is a nonprofit organization. We aim at bringing out and sharpening the skills of the engineering students from different fields. Our team comprises of students from fields of electronics, automobile, mechanical, electrical and mechatronics. We strive to put in all potential and fulfill our dream of securing top places in the event through various ideas and innovations. Our team was formed by the support of Department of Mechanical Engineering SRM University, Kattangulathur,Chennai. We represent SRM University in the eBAJA SAEINDIA events. eBAJA is an intercollegiate competition specific to off road racing. Our team designs, builds and assembles the vehicle.

DOMAINS

We have 3 major domains, viz Mechanical, Electrical and Corporate.

Corporate:

Sponsorship: Here we contact all the potential brands either by calls and mail or by setting up meetings and discuss about partnerships and collaborations. The companies are given details of the team and the event.

Finance: Here we keep records of what all parts are been bought, an inventory is maintained regarding all the expenditure. The records of all the funds are also been taken care of here.

Mechanical:

Steering: The objective is to design a quick and responsive steering system, and ensure the vehicle operates properly every time the system works. Racings events are obvious for an off-road vehicle, hence the steering system needs to be at its best to give a flawless ride.

Brakes: We design custom rotors which suits the vehicles perfectly. Brakes are supposed to be effective to lock all the wheels simultaneously and should stop the vehicle at the smallest possible distance since the drivers safety is a must.

Wheel Assembly: We design the uprights based on the suspension mounting points, wheel center point and wheel spindle point. We also do weight reduction at appropriate places to make the vehicle lighter and to increase its performance. The mounting points are given extra material to withstand the stress perfectly.

Suspension: As the vehicle is an off-road vehicle, it is destined to experience a lot of mechanical stress. Here what the suspension emerges as a hero. We simulate the suspension in Lotus software, the points are imported into solidworks and the design is tested and finalized to give the vehicle the perfect suspension it needs.

Chassis: We design the chassis to provide driver safety, while giving minimum clearances and analyse it in every aspect. The vehicle should be able to withstand the load and mechanical stresses experienced during the various events. We fabricate it by using sound engineering practices.

Transmission: We design and fabricate a gear box to meet the torque and speed requirement in different modes of operation like starting, accelerating and cruising and also for different terrains.

Design and analysis : Here we design all the parts of the vehicles. This sub-domain has huge importance as software generated parts serve as a guidelines for us to perfectly make the ATV. The specifications of the ATV decided by the SAE-INDIA is followed while other aspects like light weightness, compactness, rigidity is also is also taken care of. We use software like Solidworks, Ansys, etc.

Electrical:

Electrical: Under this , the high voltage connections, testing and verifications are done regarding the vehicle. This is a very crucial task as the very working of the vehicles depends on this internal framework and our teams makes sure it is perfectly executed.

Electronics: Going parallel with the electrical works, electronic sub domain deals with all the PCB works, soldering and other internal circuitry. Our team has been involved in telemetry innovations which has is an important attribute of the domain.

Coding: