

# D H X - 1

I set myself this project over the Easter break to develop my 3D modelling skills. I am also a keen bike enthusiast and very keen on the engineering side of design. The brief I set myself was to develop a downhill bike frame, applying modern styling techniques which would make the bike unique and appealing to the rider. I wanted the design to shout key values of the sport such as aggression, excitement and freedom. I aimed the bike to be in a professional class where the bikes are used at competition level, this meant that the bike had to utilize innovative engineering solutions to compete with brands such as Commencal, GT and Santa Cruz.

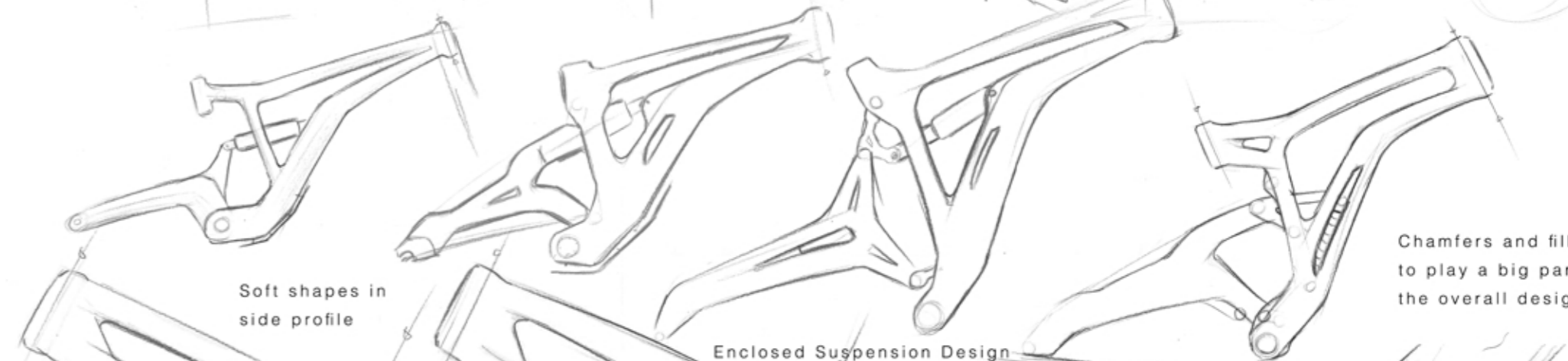


Here are a few examples of existing bikes from which I took inspiration from. With "aesthetic design" rarely being a driving factor in bike design I had to research different suspension layouts and mechanisms to understand how and what makes a good downhill bike to design on top of. I decided on a variant of the 4 bar linkage system which is currently used by the majority of professional bikes.



## Side Profile Development

Initial Ideation



Soft shapes in side profile

Enclosed Suspension Design

Chamfers and fillets to play a big part in the overall design.

Final Development

The final design was mostly completed in 3D modelling due to the nature of the project. This enabled me to speed up the final design stages making the project timing more efficient.