Locking Mechanism - Neal Traynor

* The main thing I focused on was incorporating an effective lock on the bicycle.
* The 3 most important aspects I looked at was simplicity, durability, and effectiveness.
* The lock must be simple because this will help to lower costs, and it will increase the user-friendliness of the system. It will also lead to less maintenance issues and can be replaced easily if broken.
* Durability is important because the lock will go through all types of weather, and will be dealt a lot of wear and tear. As a result, having a lock that won't freeze up or fall apart is crucial.
* Effectiveness is important because if the lock is easily broken into or will not be strong enough, buying the bike will not be very popular among consumers because it will get stolen. (peace of mind).
* The best way to tackle all 3 of these engineering principles is to take the locks that are currently being used in automobiles and modify them to fit in the bicycle door.
* This has many advantages and disadvantages.

ADVANTAGES:

1. Since the car lock is very common, acquiring the lock or the manufacturing rights to the lock should be cheap and easy.
2. It is a very tested design, so we know that if we can modify it properly it will do its job.
3. The buyer of the bicycle could get additional locking options such as keyless entry or an alarm system, much like in an automobile.

DISADVANTAGES:

1. The weight of the lock may prove to be too heavy for a lightweight bicycle, so modifications or cut backs on the design to reduce weight may limit the effectiveness of the lock