Maglock Bike Lock
The Smart Lock

The project is an electromagnetic self-contained bike lock. The cable is installed into the handlebars, making it concealed but easily accessible. You then are able to wrap around the object that you wish to lock it to and then touch the end against the electromagnet that is mounted to the frame. GPS tracking and location is for added anti-theft prevention and in the event you forget where you left it.

The idea originated from the necessity of a bike lock, and the pain points associated with it: The excessive size of the lock; the storage of the lock while riding (typically wrapped around the frame of the bicycle); damage to the paint, lock, and frame caused by constant movement and vibration; and most importantly, finding a lost or stolen bike.

Key Features

- Readily available, self-contained locking system
- Keyless locking system
- Locating lost or stolen bike
- Theft deterrent
- First ever smart bike lock with user interaction

Materials Used

- Enclosed within the handlebar
- Retracts when not in use
- Effective in all weather
- Unbreakable magnetic bond when locked

Conclusion

The Maglock Bike Lock is a very effective way to lock and unlock your bike. It takes only a fraction of the usual time to lock and unlock. Having the lock inside of the handlebars is something I think will be brought into the market at some point in the future. It is a viable bike lock solution and will be even more so when a fail-secure electromagnet is available. The GPS location is a great addition for those with expensive bikes. The size would need to be drastically reduced to make this a realistic day-to-day usable option. This was a great project and I was very happy with the final outcome.

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