IDC

ZAP

IIITDM Cycle Sharing

What ? How ? Why ?

ZAP is basically a cycle sharing system with students of IIITDM as its target customers.

It is planned to work on IoT technology which will enable students to unlock the cycle from the station using their RFID cards and use it in and around our campus for cheap price.

Students move in and out of campus frequently and the existing modes of transports are costly.

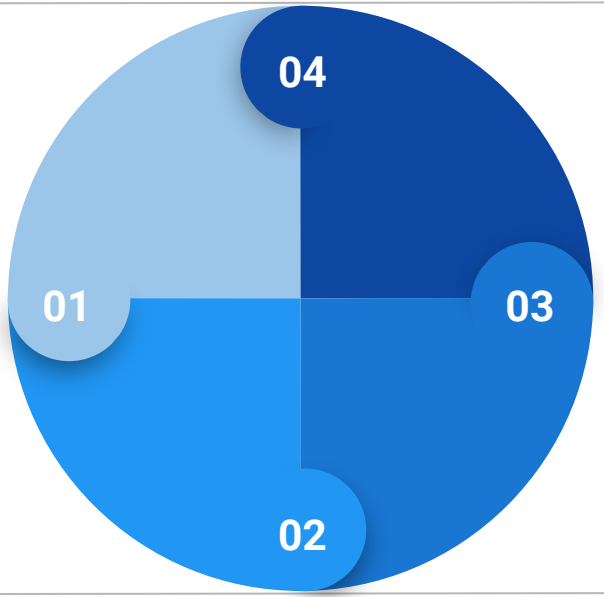
Cycle diagram

Polling from Cycle

Cycles will keep polling for data and server sends the data as soon as a request is made from RFID.

Unlocking a Cycle

Server sends signal to one of the cycle and the lock unlocks



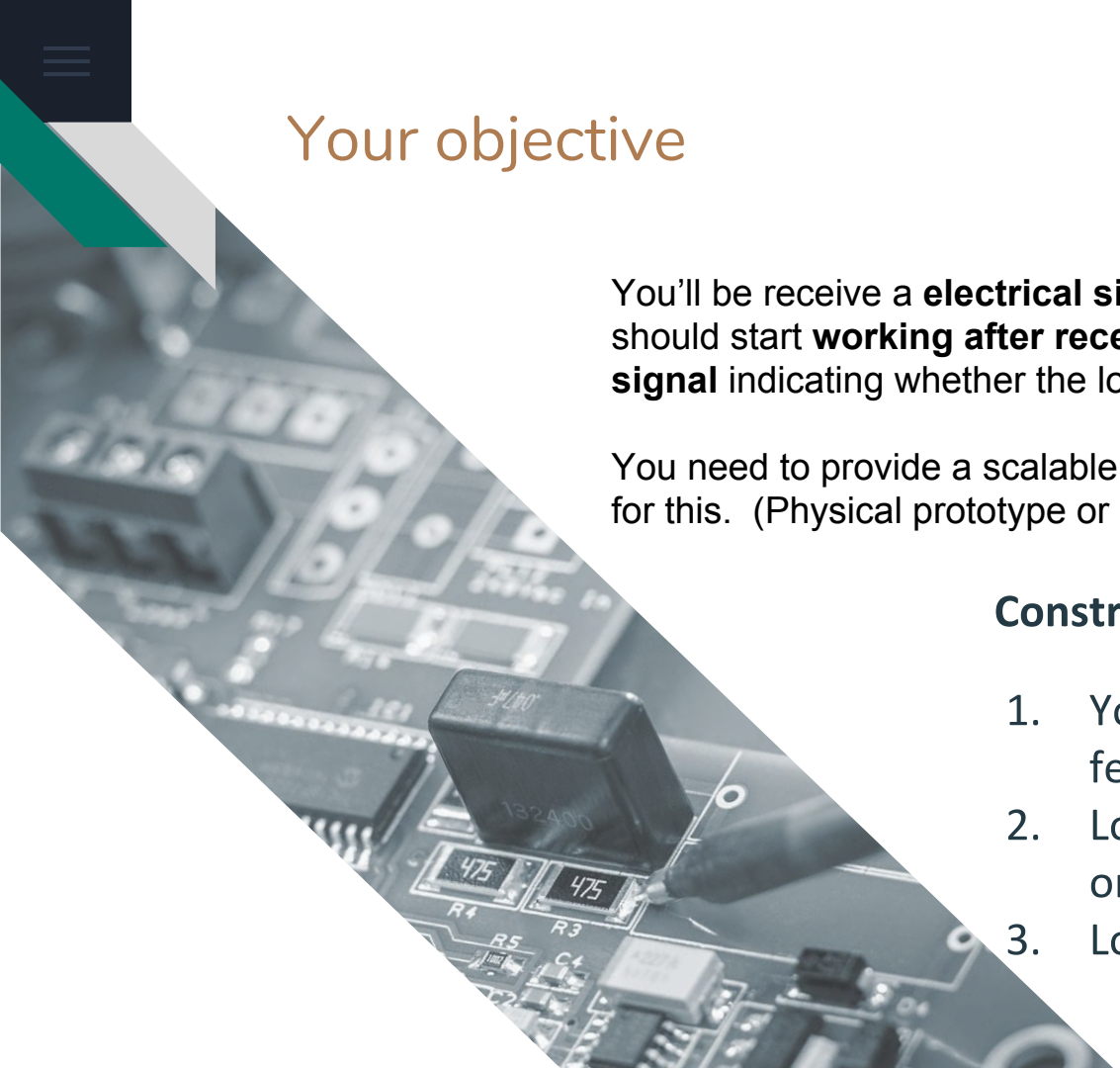
Locking

Trip ends when the rider brings the cycle to hub. Signal is sent to mechanism to lock the cycle.

Starting the ride

The trip is started. Time is noted. That cycle is currently made unavailable.

Your objective



You'll be receive a **electrical signal** from our arduino circuit. Your lock should start **working after receiving** the signal and **send** back **another signal** indicating whether the lock is locked or unlocked .

You need to provide a scalable, efficient, affordable and clean solution for this. (Physical prototype or CAD model with a neat presentation)

Constraints :

1. Your lock should be secure and feasible.
2. Lock can only be locked or unlocked only near Ashwatha.
3. Lock should be completely automatic.

Idea Tank - Intra Institute Tech Fest

- ➔ Maximum of 2 participants from team.
- ➔ Winners will get exciting prizes.
- ➔ If we are adopting a team’s idea, both the members from the team will be included in our Crew for designing the system.
- ➔ This will help you in your CV and future projects.

Thank you!

Any Queries ?