

### Motivation:

When we go to Singapore zoo, we often counter the following problems. Our device will help to solve these problems, and enable the user have a pleasant journey at Singapore zoo.

#### o Problem Statement:

1. Difficult to find animal location
2. Difficult to find toilet/vending machine/restaurant
3. Long waiting time for tram
4. Not everyone can understand the words on information board, e.g. Children
5. Difficult to secure a seat at the animal show
6. Easy to miss the animal show

#### o Solutions:

- Search and Direct
- Tram information
- Animal information
- Seat booking & Show reminder



### Functions:

#### Search function:

- Choose the desired place and the device will direct the user to it through the shortest route.
- Search the nearest toilet and the device will direct the user to it.
- Provide information about the distance to the desired place and the intermediate stops.
- If the user go to the wrong direction or reach the wrong place, the device will continue to direct the user to the desired place until the user reach it.
- A LED will indicate when the user reached the place.

#### Tram function:

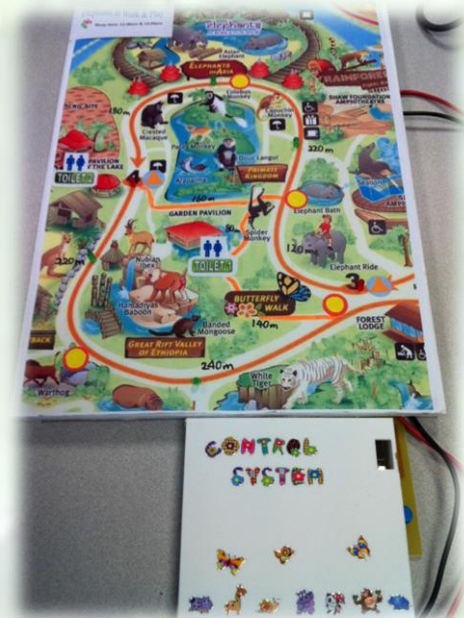
- Provide the nearest tram station according the user's current position.
- Provide information about arrival time of next tram.
- Direct the user to the respective tram station.

#### Animal function:

- Provide audio information about the animal according to the user's current position.

#### Booking function:

- Provide the no. of available seats at the animal show.
- Book the seat for animal show.
- An alarm will ring before 30min of the show as a reminder.
- Direct the user to the show place.



### Further Implementations:

- Search function can also be implemented to find the nearest vending machine or restaurants.
- Information exchange system can be used to send other information such weather information, no. of available seats on the tram and advertisement.