Siesta Gardens Controller

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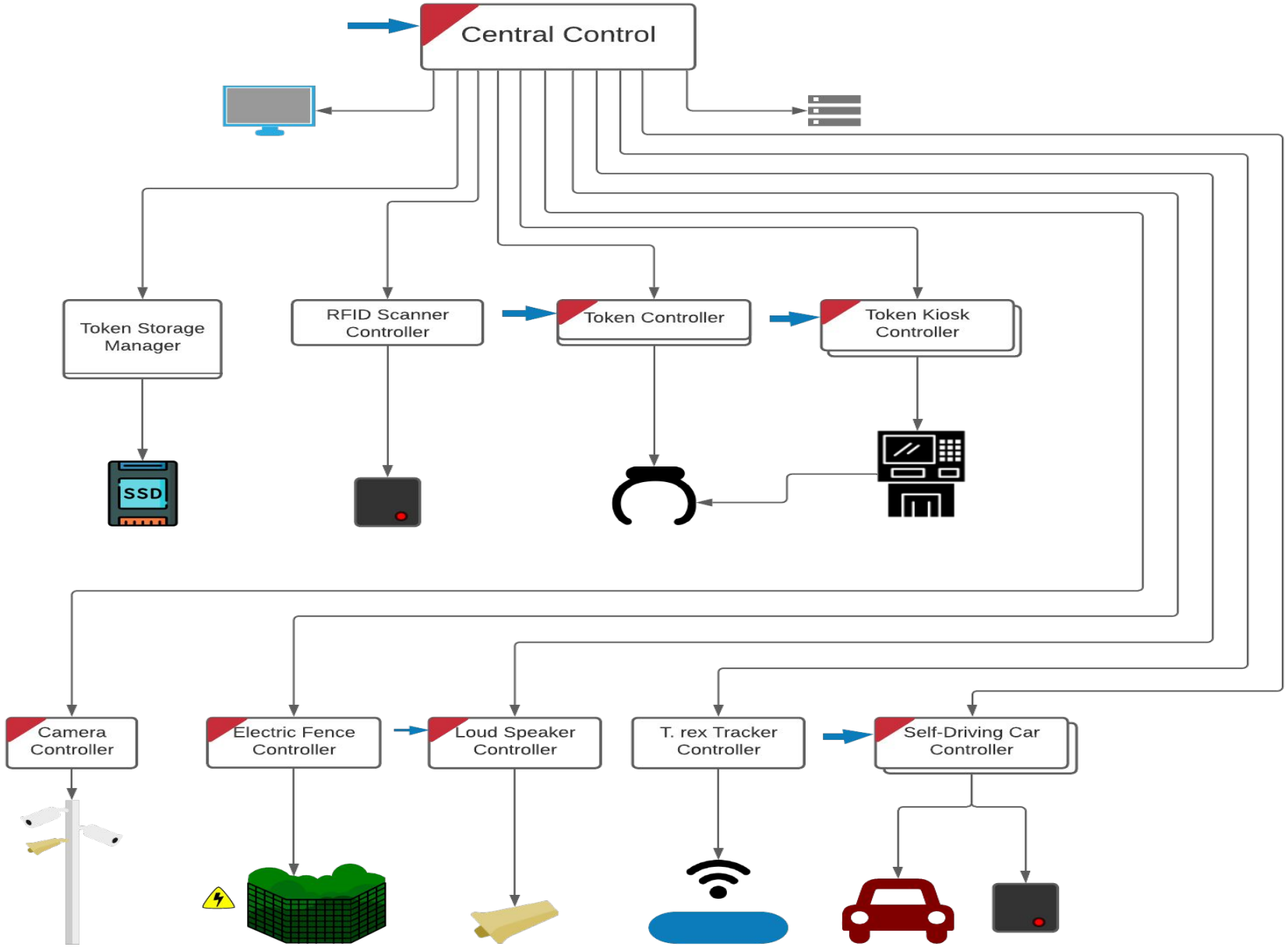
Welcome to Siesta Gardens Theme Park...165 Million years in the making! Due to an amazing scientific feat, our theme park will be like no other on Earth featuring a live T. Rex exhibition. This project is funded by billionaire philanthropists who have given B-Stack an unlimited, spare-no-expense budget. Therefore, Siesta Gardens will be an amazing vacation experience.

Guests will arrive via barge on the East side of the Key where they will receive their Token Bracelets. After that, they will be swept away along a beautiful, oceanic scenic route in a self-driving car to the main T. Rex exhibit on the East side.

Siesta Gardens Overview:

1. Ticketing System
2. Automated Car Parking
3. Automated Car Parking
4. Viewing Area
5. Security Cameras
6. T. rex exhibit
7. Spare Car Parking
8. Control Building


Central Control
Token Storage Manager
RFID Scanner Controller
Token Controller
Token Kiosk Controller
SSD
Camera Controller
Electric Fence Controller
Loud Speaker Controller
T. rex Tracker Controller
Self-Driving Car Controller

Siesta Garden Controller Architecture:

1.	Central Controller	Main Monitor/Controller
2.	Token Controller	Controls the Bracelets
3.	Token Kiosk Controller	Controls the Kiosk Machines
4.	Self-Driving Car Controller	Controls the cars/RFID scanners (in cars)
5.	Camera Controller	Controls the camera feeds
6.	Electric Fence Controller	Controls the Fence
7.	Loudspeaker Controller	Controls the PA system
8.	T. Rex Tracker Controller	Controls the GPS Chip
9.	Token Storage Controller	Controls Active Guest Info
10.	RFID Scanner Controller	Controls All the park-wide scanners

Central Controller:

This is the overarching component that monitors/commands each sub-component controller, displays the status to the operators, and accepts command requests from the park operators. Under normal operations, the controller will just update the status displays with the status of each component of the SGC system, and send commands from operators to those components.

Token Controller:

This controls the token RFID bracelets that will be unique to each guest. It will send radio frequencies to the RFID scanners located in the cars and around the key. This allows central control to track and monitor the guest locations in real time for their safety. Their will have a smartwatch display that will allow for visual and haptic messaging as well.

Token Kiosk Controller:

This controls all the kiosk machines that will dispense the token bracelets. They will receive the master daily list of purchased receipts and send the updated bracelet guest information to central control.

Self-Driving Car Controller:

This controls all the cars and basically transports the guests from the East side to the West side to the T. Rex exhibit then back to the main entrance after the 30 minute viewing period. It helps central control to track and monitor the guest's locations in real time via a RFID scanner located inside each car.

Camera Controller:

This controls all the cameras located all around the Key and inside the T. Rex exhibit. They send their live feeds back to central control for monitoring the guests and the T. Rex for safety.

Electric Fence Controller:

This controls the electric fence that encloses the T. Rex with high voltage electricity. It is strong enough to deter the animal but not enough to kill it.

Loudspeaker Controller:

This controls all the Loudspeakers around the Key and outputs all messages and alerts from central control.

T. Rex GPS Chip:

This monitors the T. Rex's health vitals and location tracking in real time.

Token Storage Management Controller:

This stores all the guest information related to their unique token RFID bracelet and will be cleared upon departure of those guests.

RFID Scanner Controller:

This controls all the RFID scanners located all around the Key.