RE: [CS 460] T03 TFS more questions...

Catherine Wright <catherine.jmw@gmail.com>

Mon 10/14/2019 5:59 PM

To: Siri Hargobind S Khalsa <skhalsa10@salud.unm.edu>; 'soraya@cs.unm.edu' <soraya@cs.unm.edu>; Catherine Marie Wright <wrightc@unm.edu>;

Hi Siri,

It is good to ask questions. We did leave this project slightly open-ended, and that was more to leave decisions to your team's discretion. The number of cars is up to you. From you previous email, of course we do not expect you to design an autonomous vehicle. As with the elevators, think of the hardware already being present, and you interface with pieces such as the motor to tell it when to go. For simplicity you could even think of the cars being on a track, and being able to take commands to the motor such as "go to south end". You can also decide if there is a restriction on visitors both on the island in total or at the viewing center.

Regarding question 4, I think it is easier to have one overall database for all visitor ID's so they can use any car, but again that is up to you.

Regarding something you mentioned in your email Sunday about the extent of research into electric fences, GPS systems, autonomous cars, etc., think about the elevator and how the TFS was there to show a broad overview of the technology that currently exists and the feasibility of designing a control system that could manage it.

If there are any questions still lingering please send them again, it does seem like you've been on a good track through.

Best,
Cat

Sent from Mail for Windows 10

From: Siri Hargobind S Khalsa
Sent: Monday, October 14, 2019 5:14 PM
To: 'soraya@cs.unm.edu'; Catherine Wright; Catherine Marie Wright
Subject: RE: [CS 460] T03 TFS more questions...

I am sorry I am asking so many questions here are easier questions:

1. What is the total amount of cars we can have on our island?
2. Is there a restriction about how many total guests can be active in the garden(how many active tokens there can be)?either waiting at the south-end, riding vehicles, and be at the north-end?
3. Is there a separate restriction for how many people can be located at the viewing center at one time?
4. Are the visitors assigned cars? Is this from the south lot? They will only accept guests assigned to them before they leave? Or is it only after they leave that they know what guests they took to the north side?

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Please Enter A UNMCC Ticket at:
https://help.health.unm.edu/CherwellPortal/CancerCenter

From: Soraya Abad Mota <soraya@cs.unm.edu>
Sent: Sunday, October 13, 2019 10:00 PM
To: Siri Hargobind S Khalsa <skhalsa10@salud.unm.edu>; Catherine Wright <catherine.jmw@gmail.com>; Catherine Marie Wright <wrightc@unm.edu>
Subject: Re: [CS 460] T03 TFS more questions

[[-- External - this message has been sent from outside the University --]]

Hi Siri,

I haven't had a chance to reply to your messages, but I can tell you that you are doing all the right things, researching and thinking about all these details. Good job!

My main advise at this point is to think about it big in the requirements and design, but of course you will only implement a subset of that to show the main scenarios.

And yes, this is ok, what you said here: "I am thinking we could build the system that would communicate with all sensors and we could showcase the logic for the different scenarios by simulating most input to the system and then showcase what would be a monitoring of the system similar to the attached image. is this okay?" The image looks good, that is a good abstraction of the context.

I will be able to give more feedbak when I return.

Regards,

Soraya

On 10/13/19 11:53 AM, Siri Hargobind S Khalsa wrote:

> Okay sorry I am bombarding you with stuff. when thinking of stuff to research for this project it is not immediately clear... like elevators.
>
> 1. Are we expected to build a real autonomous car software? (this seems way out of scope for the amount of time allotted in this project) If this was a real world scenario I would still prefer to contract out this piece with a company that has more experience in the area. I have been assigned the task to find stuff to research for this project. I think the autonomous cars may be out of scope.
>
> 2. obviously our papers can be Extremely realistic and I could research electric fence interfaces and autonomous car interfaces and an accurate gps interface or whatever, but obviously what we program can not possible be that. we will have to emulate these complex interfaces. Is this the expectation? that our papers will be reference to a realistic system where our final product will be a simplified version of that?
>
> I am thinking we could build the system that would communicate with all sensors and we could showcase the logic for the different scenarios by simulating most input to the system and then showcase what would be a monitoring of the system similar to the attached image. is this okay?

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From: Siri Hargobind S Khalsa
Sent: Saturday, October 12, 2019 2:43 PM
To: Catherine Wright; Catherine Marie Wright; soraya@cs.unm.edu
Subject: [CS 460] T03 TFS questions

Afternoon,

After reading the project descriptions I have some clarifying questions. They are mainly about enforcing safety. The description states the following:

The vehicle will not leave until all visitors have returned.

and

The system must act as quickly as possible to get every visitor safely back to the south end of the island.

I am thinking of a scenario when visitors are at the north end of the park. and not in their car. if the electric fence goes off here and the emergency system gets triggered. The customers will be exploring this end of the park. It will be hard for an entirely automatic system to force people back into their cars. Can we assume that our system must work in junction with employees? will their be people that we can rely on to get people back in their vehicles?

You state that there will be automatic CARS. I am guessing this means that depending on how many "Tokens" are dispensed we can have X amount of cars out on the island at a time. I am thinking of a system where the tokens are unique to a guest but also act as a gps locator to the system as well as a key of sorts and used to keep track of guests.

So in a scenario where a car takes 10 guests to the north end of the park and they let the guests out in the park. in a normal scenario this car begins a timer and then sounds an alarm. the guests should get back in the car. if there are 5 other cars at the site. should the car ONLY accept the guests that it took there on the way back? or is it acceptable for a car to take a guest that was at the site from a different car back?

in a similar situation with an emergency. no matter your answer for above I think it would be best for cars to take any guest back. but empty cars would be sent to the site to pick up anybody there as well as employees.

last thing as a way to showcase our system can we build a simulation of what it would look like with people?

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