C3C Colton Willits

Comp Sci 210

Dr. Weingart

27 Sept. 2020

Lesson 16 Worksheet

Desired Capabilities: interact with user, play music, track daily routines, and play games.

Part I.

System requirements:

1. Sound
2. Mic
3. Camera/or IR Sensors
4. Motor Control
5. Recognize voice commands.
6. Display control
7. Display touch controls
8. Write/ read long term memory
9. Read battery levels
10. Internet Connection

Part II.

Initialize start

//System boot and set up

Start display

Read battery levels

Check Sound, Mic, Camera/Sensors,

Read memory

Connect to internet. // use for time, updates, and user friendly AI

//return error codes if needed or connect to wifi prompt

UILoad() // display main UI app menu/ face

System.Await(void) //await for user input or command main user interface

programStart(user.input) //starts user selected program

functionality(user.input) //Starts AI interactive functionality, such as communicating with user.

System(command) //system level program such as shutdown or turn off device or update.

programStart(user.input): // starts user selected program

program() // selected program app or game outputs sound, uses memory, and system to interact with user.

Settings() // displays device settings and records them to memory.

System(update) // calls system to update

Return to main await function

System(command)

Shutdown:

Save data to long term memory

Properly shutdown system hardware to avoid damage

Exit whole program

Restart

Save data to long term memory

Properly shutdown system hardware

Call main(void)

Update:

Check internet connection

Check server for update

If no update tell user

exit

If update ask user if they wish to continue

Exit if user wishes

Download update

Save data to long term memory

Shutdown mechanical process show progress on display

Install software

Call main(void) to reboot system with new update

Part III.

See publisher flow chart document. Could not import diagram.