

Team Number: 15

Date: 26/01/2021

SCRUM LEADER: Sheng Wang

Name #1	
Nathan Poon	Since last scrum: Forming the group
	Working on today: go through tutorials, brainstorming project ideas
	Roadblocks: none
Name #2	
Hung Nguyen	Since last scrum: Form the group
	Working on today: Work on tutorial for DE1-Soc, start brainstorming project ideas
	Roadblocks: none
Name #3	
sheng wang	Since last scrum: form the group
	Working on today: Work on tutorial of DE1-Soc, come up with group ideals
	Roadblocks:none
Name #4	
Te Lai	Since last scrum: form the group
	Working on today: go through the tutorials
	Roadblocks: none
Name #5	
Weihao Xia	Since last scrum: Form the group
	Working on today: Tutorial for DE1SoC
	Roadblocks: none

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Date: 28/01/2021

SCRUM LEADER: Nathan Poon

Name #1	
Nathan Poon	Since last scrum: Finished project proposal
	Working on today: Slide set for presentation
	Roadblocks: none
Name #2	
Hung Nguyen	Since last scrum: Finished the tutorial for DE1-Soc
	Working on today: Come up with 1 project idea to present to the group at the next meeting
	Roadblocks: none
Name #3	
sheng wang	Since last scrum: finish the tutorial of DE1-Soc
	Working on today: work on the proposal
	Roadblocks: get up for group meeting
Name #4	
Te Lai	Since last scrum: Finished the tutorial
	Working on today: Come up with a project ideal and present to other teammates
	Roadblocks: none
Name #5	
Weihao Xia	Since last scrum: Finished the tutorial
	Working on today: Come up with a project ideal and present when meeting
	Roadblocks: none

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Date: 02/02/2021

SCRUM LEADER: Hung Nguyen

Name #1	
Nathan Poon	Since last scrum: Present the idea to the group, do anonymous voting to decide the final project idea
	Working on today: Preparing project proposal
	Roadblocks: none
Name #2	
Hung Nguyen	Since last scrum: Present the idea to the group, do anonymous voting to decide the final project idea
	Working on today: Preparing project proposal
	Roadblocks: none
Name #3	
sheng wang	Since last scrum: Present the idea to the group, do anonymous voting to decide the final project idea
	Working on today: Preparing project proposal
	Roadblocks:none
Name #4	
Te Lai	Since last scrum: Present the idea to the group, do anonymous voting to decide the final project idea
	Working on today: Preparing project proposal
	Roadblocks: none
Name #5	
Weihao Xia	Since last scrum: Present the idea to the group, do anonymous voting to decide the final project idea
	Working on today: Preparing project proposal
	Roadblocks: none

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Date: 04/02/2021

SCRUM LEADER: Te Lai

Name #1	
Nathan Poon	Since last scrum: Finished project proposal
	Working on today: Slide set for presentation
	Roadblocks: none
Name #2	
Hung Nguyen	Since last scrum: Finished project proposal
	Working on today: Slide set for presentation
	Roadblocks: none
Name #3	
sheng wang	Since last scrum: finish the proposal
	Working on today: slide set for presentation
	Roadblocks: get up for group meeting
Name #4	
Te Lai	Since last scrum: Finish the proposal
	Working on today: slide set for presentation
	Roadblocks: none
Name #5	
Weihao Xia	Since last scrum: Finish the proposal
	Working on today: Slide set for presentation
	Roadblocks: none

Name #1	
Nathan Poon	Since last scrum: Started research into BMP file formats and how to manipulate them in Verilog
	Working on today: Define module interfaces to perform FPGA image pre-processing
	Roadblocks: trying to get internet example to work: however BMP file write not working
Name #2	
Hung Nguyen	Since last scrum: Learned how to crop images in Verilog using HEX file. Manage to use Matlab code to convert BMP to HEX.
	Working on today: Create the frame modules for image cropping. Started with boundingBox module.
	Roadblocks: We found some online resources but they're not synthesizable code.
Name #3	
sheng wang	Since last scrum: finish the presentation
	Working on today: working on tutorial 2
	Roadblocks:
Name #4	
Te Lai	Since last scrum: Finish the Login page and Sign up page design for app front-end
	Working on today: apply the uploading/taking photos feature
	Roadblocks: none
Name #5	
Weihao Xia	Since last scrum: set the database
	Working on today: functions of the back-end
	Roadblocks: none

Name #1	
Nathan Poon	Since last scrum: Got example Verilog code to work, however, it is not synthesizable. It illustrates how to manipulate BMPs on a byte level, and how to construct a BMP Header. Defined modules for preprocessing: Find corners, Write outcropped
	Working on today: Begin work on actual Verilog code
	Roadblocks: none
Name #2	
Hung Nguyen	Since last scrum: Do more research on BMP file format, how to read a HEX format using memread. Started writing a module for finding the bounding box, aka corner pixels of the object.
	Working on today: Continue working on bounding box Verilog code. Started on the cropping module and a bit into the header module of the BMP file.
	Roadblocks: none
Name #3	
sheng wang	Since last scrum: working on a tutorial, starting doing rs232 on de1soc.
	Working on today: let rs232 onboard communicate with itself.
	Roadblocks: get up for group meeting
Name #4	
Te Lai	Since last scrum: finish the uploading/taking photos feature
	Working on today: apply the List view layout in app front-end
	Roadblocks: none
Name #5	
Weihao Xia	Since last scrum: Finish some of the function of back-end
	Working on today: keep on working on the back-end
	Roadblocks: none

Name #1	
Nathan Poon	Since last scrum: Finished most Verilog code with Hung: however some issues persist as outlined in the Roadblocks section. Also finished testbenches for boundingBox, cropping, and top-level modules
	Working on today: Fixing bug described in roadblocks
	Roadblocks: bug: output BMPs are shifted around slightly with a miscoloured edge - possible padding issue
Name #2	
Hung Nguyen	Since last scrum: Finished implementing the boundingBox and header modules with Nathan. Wrote tests for all three modules boundingBox, header, and cropping. However, the cropping has some bugs
	Working on today: Started helping Sheng with processor stuff.
	Roadblocks: outputs were inverted, color edges were not arranged properly. Delay in the waveform.
Name #3	
sheng wang	Since last scrum: finish the rs232, and try using it between de1soc board and raspberry pi
	Working on today: working on rs232 communication
	Roadblocks: none
Name #4	
Te Lai	Since last scrum: finish the List view layout in app front-end
	Working on today: Sending requests to the Google cloud vision API
	Roadblocks: none
Name #5	
Weihao Xia	Since last scrum: Finish most of functions for back-end
	Working on today: fix error and developing more with Peter
	Roadblocks: none

Name #1	
Nathan Poon	Since last scrum: Fixed the bug! Output BMP is correct. Now Verilog complete: can read hex mem, crop it, output it new BMP
	Working on today: Convert MATLAB code into C that can run on DE1-SoC processor
	Roadblocks: none
Name #2	
Hung Nguyen	Since last scrum: Added UARTs including Bluetooth, GPS, touchscreen, RS232 onto the board through the schematic diagram and some Verilog code. Compiled and loaded it on DE1 using the Programmer.
	Working on today: With Sheng, started working on controlling the UARTs and basic components of the board like LEDs and HEX display through C code in DS5.
	Roadblocks: tutorials and exercises were unclear but managed to get some help during office hours.
Name #3	
sheng wang	Since last scrum: finish all of bluetooth, wifi, and rs232.
	Working on today: waiting for a score.
	Roadblocks: get up for group meeting
Name #4	
Te Lai	Since last scrum: Successfully sending requests to the Google cloud vision API
	Working on today: design the requests that will be sent to the back-end
	Roadblocks: none
Name #5	
Weihao Xia	Since last scrum: Finish a basic back-end
	Working on today: developing more
	Roadblocks: none

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Date: 02/03/2021

SCRUM LEADER: Te Lai

Name #1	
Nathan Poon	Since last scrum: Finished C code for converting BMP to hex memory
	Working on today: Module 2 presentation
	Roadblocks: none
Name #2	
Hung Nguyen	Since last scrum: With Sheng, I wrote C code to control the LEDs. Jump wires for RS232 to control the input and output of RS232 using C code in DS5.
	Working on today: Start working on the Touchscreen interfaces in Python, start working on Bluetooth module and sonar sensor. Work on module 2 presentation.
	Roadblocks: Not much except issues with using new tools like DS5 and RS232
Name #3	
sheng wang	Since last scrum: finish the communication between raspberry pi and de1soc board
	Working on today: try using the usb camera on raspberry pi
	Roadblocks: get up for group meeting
Name #4	
Te Lai	Since last scrum: finish all the requests that will be sent to the back-end, and successfully build the connection with the back-end.
	Working on today: Debugging for whole app frontend, including errors caused by large images
	Roadblocks: none
Name #5	
Weihao Xia	Since last scrum: developing new features for back-end
	Working on today: debugging the back-end
	Roadblocks: none

Name #1	
Nathan Poon	Since last scrum: Finished module 2 presentation
	Working on today: Integrate C code with Verilog via platform designer
	Roadblocks: none
Name #2	
Hung Nguyen	Since last scrum: Finished module 2 presentation
	Working on today: Start working on the touch screen in Python. Start working on the serial communication between the Raspberry Pi and DE1 using an RS232 wired connection.
	Roadblocks: Need help with writing C code for serial communications. Get help during office hours.
Name #3	
sheng wang	Since last scrum: finish the working usb camera in basic.
	Working on today: try using the bluetooth with AT command.
	Roadblocks: none
Name #4	
Te Lai	Since last scrum: Finish implementing all user cases for app, finish the individual report
	Working on today: prepare for the module2 demo
	Roadblocks: none
Name #5	
Weihao Xia	Since last scrum: debugging the back-end
	Working on today: individual report and presentation
	Roadblocks: none

Name #1	
Nathan Poon	Since last scrum: Researched how to use the Google vision API from our Python app.
	Working on today: Implement JSON parser for Google vision response to extract recognition labels.
	Roadblocks: Cannot debug on raspbian platform, as I do not own an rPi. Looking into ssh into Hung's rPi
Name #2	
Hung Nguyen	Since last scrum: Code for RS232 serial communication between the Raspberry Pi and DE1. Also wrote a skeleton code for the basic touch-screen app.
	Working on today: Started working on the sonar sensor and the camera. Aim to display the distance of the sonar sensor onto the DE1-soc hex display and take an image when the sonar sensor detects items. Keep working on the touchscreen app.
	Roadblocks: Debug RS232 serial communication. Sometimes, data is faulty.
Name #3	
sheng wang	Since last scrum: can use the at commands to connect the mobile with the bluetooth chip
	Working on today: Write the code in eclipse to send the AT command to bluetooth chip
	Roadblocks:none
Name #4	
Te Lai	Since last scrum: Working on frontend app bluetooth button
	Working on today: Working on frontend app bluetooth button
	Roadblocks: none
Name #5	
Weihao Xia	Since last scrum: Working on backend tests
	Working on today: Working on backend tests
	Roadblocks: none

Name #1	
Nathan Poon	Since last scrum: Finished google vision API requests in python app. Working on pages to display ingredients information. Got dynamically displaying images working.
	Working on today: Working on factoring out common aspects of both display screens: custom items and normal items. Want cleaner code
	Roadblocks: ssh not working??? Right now using vnc viewer
Name #2	
Hung Nguyen	Since last scrum: Finished the sonar sensor, displaying distances on HEX display and capturing images. Finished debugging the RS232 serial communication with Sheng. Wrote basic code to interact with Google vision API for the touch-screen.
	Working on today: Work on Bluetooth communication between our android phone app and RFS board's Bluetooth component with Sheng. Keep working on the touchscreen app with Nathan. Figure out how to send images between DE1-soc and Raspberry Pi using RS232 UART communication.
	Roadblocks:
Name #3	
sheng wang	Since last scrum: finish writing the code in eclipse to send the AT commands to the bluetooth chip.
	Working on today: try to test the code in eclipse about bluetooth, try to connect the mobile app with the bluetooth chip.
	Roadblocks:
Name #4	
Te Lai	Since last scrum: finished code of bluetooth button
	Working on today: Try to connect the mobile app with the bluetooth chip.
	Roadblocks: none
Name #5	
Weihao Xia	Since last scrum: Working on backend tests
	Working on today: finished all backend tests, try to use them to check all api endpoints
	Roadblocks: none

Name #1	
Nathan Poon	Since last scrum: Finished matching code for different scenarios: generally harmful or avoidance list items, against ocr or recognition requests. Also factored out more code for common display
	Working on today: Exception handling for when matches don't occur as expected.. Also mocking the new image system to more closely model the final async image loading process.
	Roadblocks: Need to find out more about RESTFUL requests to the backend. Consultation with Te is needed
Name #2	
Hung Nguyen	Since last scrum: Worked with Sheng to configure the Bluetooth on RFS using AT commands. Connected the phone with the HC-05 Bluetooth of the RFS board after configuration. Finished writing the basic frame of the touchscreen app. Finished sending images between DE1 and Raspberry Pi.
	Working on today: Write C code for the Bluetooth module to send and receive data from a phone app. Start working on Platform Designer to incorporate the 'hardware acceleration module' onto the DE1-soc board.
	Roadblocks: Debug data not being sent over Bluetooth. Platform designer problems with memory.
Name #3	
sheng wang	Since last scrum: finish the code of the bluetooth that get the message from the mobile app and send this message to raspberry pi by using the rs232.
	Working on today: Demo the work of the bluetooth and rs232.
	Roadblocks:
Name #4	
Te Lai	Since last scrum: successfully connect the app with the bluetooth chip. Working on the twilio function in the backend with weihao.
	Working on today: finished the code of twilio endpoint, still debugging with weihao.
	Roadblocks: none
Name #5	
Weihao Xia	Since last scrum: Working on the twilio function in the backend with Te.
	Working on today: finished the code of twilio endpoint, still debugging with Te.
	Roadblocks: none

Name #1	
Nathan Poon	Since last scrum: Added tests for utility functions
	Working on today: Look at finally implementing multiprocessing to take and read images.
	Roadblocks: Need to collab with Hung to transfer image from De1 to rPi
Name #2	
Hung Nguyen	Since last scrum: Fixed platform designer problems and added a basic simple hardware module to DE1 and tested it. Worked with Sheng and Peter on Bluetooth login functionality. Data can be sent between the phone and the RFS's Bluetooth component.
	Working on today: Work on adding the full hardware acceleration module to DE1 to crop images. Work on the touchscreen app with Nathan.
	Roadblocks: Changes the Verilog code to conform to the Avalon interface.
Name #3	
sheng wang	Since last scrum: combine the code of bluetooth and rs232.
	Working on today: debug the problem between rs232 and bluetooth.
	Roadblocks:
Name #4	
Te Lai	Since last scrum: fix some bugs in backend with weihao
	Working on today: still debugging for backend twilio code with weihao, receive the message sending from personal twilio account
	Roadblocks: none
Name #5	
Weihao Xia	Since last scrum: fix some bugs in backend with Te
	Working on today: still debugging for backend twilio code with Te
	Roadblocks: none

Name #1	
Nathan Poon	Since last scrum: Almost finished multiprocessing in python to transfer image across two processes.
	Working on today: Finish the multiprocessing code
	Roadblocks: none
Name #2	
Hung Nguyen	Since last scrum: Finished adding the hardware acceleration module and tested the module with different cases. Wrote basic image transfer protocol between the DE1 and the Raspberry Pi. The cropped images can now be displayed on the touchscreen app.
	Working on today: Work on modifying the cropping algorithm because the background is dimmed and the lighting interferes a lot with the cropped images. Meanwhile, work on the remaining functionalities of the touchscreen app with Nathan. Start working on the Wifi module of the RFS board with Sheng.
	Roadblocks: Lighting issues. The background color is not bright enough. Needs modifications.
Name #3	
sheng wang	Since last scrum: finish the combination between rs232 and bluetooth
	Working on today: read the pdf of wifi chip, try to run the AT commands of wifi chip
	Roadblocks:
Name #4	
Te Lai	Since last scrum: finished the debugging with weihao, twilio function works
	Working on today: start to try different items for the scan item function. Prepare sample items for demo
	Roadblocks: none
Name #5	
Weihao Xia	Since last scrum: finished the debugging with Te, twilio function works
	Working on today: adding comments for all backend and test code
	Roadblocks: none

Name #1	
Nathan Poon	Since last scrum: Finished multiprocessing on both sides. One process takes picture and notifies the other so it can be displayed to the user.
	Working on today: Actually implement the backend REST requests to get the user lists
	Roadblocks: Lack of access to hardware for testing, however collab with Hung is working well
Name #2	
Hung Nguyen	Since last scrum: Fixed the lighting problems of the hardware acceleration module. Tested it on different items. Worked with Nathan on the touchscreen app. The image transfer protocol is also completed on both the DE1 C code and the python code on the Raspberry Pi.
	Working on today: Work on writing AT commands to configure the Wifi board and try to connect it to local wifi networks with Sheng. Then try to load code on the Wifi board to send messages using Twilio API.
	Roadblocks: Wifi cannot connect to local wifi networks.
Name #3	
sheng wang	Since last scrum: find the reset button on the wifi chip, finish the bluetooth code and combine them with the code of rs232.
	Working on today: flash the wifi chip to make it can use the lua script.
	Roadblocks:
Name #4	
Te Lai	Since last scrum: adding comments for frontend code
	Working on today: finished the comments for frontend code, and fixing a bug for scan ingredient list function with weihao.
	Roadblocks:
Name #5	
Weihao Xia	Since last scrum: finished comments for all backend and test code
	Working on today: Fixing a bug for scan ingredient list function with Te
	Roadblocks:

Name #1	
Nathan Poon	Since last scrum: Finished the REST requests to backend for user lists
	Working on today: The Google vision recognition does not always yield the expected result. The dashboard gives expected results but not the JSON. will investigate today
	Roadblocks: none
Name #2	
Hung Nguyen	Since last scrum: Helped Sheng working on the Wifi component of the RFS board. Sheng flashed the board and now we can write LUA scripts onto the board. It could also connect to wifi networks now. I also wrote some sample LUA scripts to test out the LUA scripts of the Wifi Board.
	Working on today: Write the LUA scripts with Sheng to send GET/POST requests to the backend. The backend will then send a request to the Twilio API. Work on the Bluetooth login frontend page on the touchscreen.
	Roadblocks: cannot contain a body in the POST request in LUA.
Name #3	
sheng wang	Since last scrum: finish flash the wifi board, and write the lua script of send request by using the arduino, give up using the "explorer" app th write the lua script.
	Working on today: Try to write the lua script by use the eclipse. Solve the bug that the eclipse can not send the long lua code at once time.
	Roadblocks:
Name #4	
Te Lai	Since last scrum: add the general toxic substances in frontend.
	Working on today: test the all functions again after adding the general toxic substances
	Roadblocks: none
Name #5	
Weihao Xia	Since last scrum: add more tests for backend
	Working on today: run the additional tests to check the backend
	Roadblocks: none

Name #1	
Nathan Poon	Since last scrum: Fixed API requests, also added buttons to display ingredients of recognized items. They will be displayed in a table. For each item, user clicks button for corresponding ingredients to appear
	Working on today: Finishing touches to app, planning video
	Roadblocks: Have to film with Hung remotely to demonstrate app together
Name #2	
Hung Nguyen	Since last scrum: Finished sending Twilio messages using the Wifi component of the board with Sheng and Peter. Finished writing the frontend page for Bluetooth login and tested it with Sheng. Completed the touchscreen app with Nathan.
	Working on today: Work on polishing up the app and make sure everything works well together including the sonar sensor, touchscreen, camera, serial communications, etc.
	Roadblocks:
Name #3	
sheng wang	Since last scrum: finish the wifi part that uses lua script to send the request to the backend of the app, then combine the code of wifi and the code of rs232, BT. solve the problem that eclipse can not send the lua script
	Working on today: Connect the circuit of wifi, bluetooth and rs232 prepare for demo, write the words for demo. Try to solve the explorer problem that meets the error when connecting the serial port.
	Roadblocks:
Name #4	
Te Lai	Since last scrum: prepare the sample items and pre-set the database
	Working on today: record the demo video
	Roadblocks: none
Name #5	
Weihao Xia	Since last scrum: prepare slides for demo video to present all the api endpoints.
	Working on today: record the demo video
	Roadblocks: none

Team Number: 15

Date: 06/04/2021

SCRUM LEADER: Te Lai

Name #1	
Nathan Poon	Since last scrum: Finalized rPi app. Hardware testing was performed to test entire integrated system in prep for video
	Working on today: Filming demos
	Roadblocks: none
Name #2	
Hung Nguyen	Since last scrum: Finished polishing app the App and made sure everything works well for the demo. Prepared necessary items for the demo.
	Working on today: Start recording demos and work on the report.
	Roadblocks:
Name #3	
sheng wang	Since last scrum: finish the demo and record the video, increase the code quality of c of rs232, wifi, and bluetooth. Connect the whole circuit and prepare for the presentation.
	Working on today: working on the report
	Roadblocks:
Name #4	
Te Lai	Since last scrum: finished the demo video
	Working on today: working on the report
	Roadblocks: none
Name #5	
Weihao Xia	Since last scrum: finished the demo video
	Working on today: working on the report
	Roadblocks: none

