Date	Name	Since last scrum	Working on today	Roadblocks
Feb 8, 2022	Hiren Khurana	Brainstorming ideas for our project	Building first proposal for TA Review	
	Joshua Yellowley	Generated ideas for project - audio to music sheets	Building first proposal for TA Review	
	Marco Ser	Brainstorming ideas for our project	Building first proposal for TA Review	
	Nicholas Ng	Brainstorming ideas and potential hardware usecases for our project	Building first proposal for TA Review	
Feb 10, 2022	Hiren Khurana	Tried figuring out how to get the hardware acceleration working in hardware	Inroned out uncertainties like what kind of acceleration is needed	Boss Comments not received yet
	Joshua Yellowley	Researching cloud component and communication network	More adjustments for uncertainty in our proposal	Boss Comments not received yet
	Marco Ser	Received 6/6 from TA, but continued to figure out some uncertainties with our idea	Ironing out any uncertainties we had and resubmitting another proposal for review	
	Nicholas Ng	Continued to iron out TA concerns about projects hardware requirement	Inroned out uncertainties and edited and adjusted aspects to better fit the requirements	Boss Comments not received yet
Feb 15, 2022	Hiren Khurana	Continues researching the specifics of the hardware decided in the proposal	how to get image compression done in hardware using DCT	Still awaiting boss approval
	Joshua Yellowley	Received boss comments, reviewed old proposal and related boss comments. Created suggestions for proposal changes	Refined proposal and specified hardware component and compression algorithm. Collaborated to rewrite non-passing sections with addtional clarity	Still awaiting boss approval
	Marco Ser	Received boss comments, reviewed old proposal and related boss comments. Created suggestions for proposal changes	Refined proposal and specified hardware component and compression algorithm. Obtained some of the physical hardware required for our idea	Still awaiting boss approval
	Nicholas Ng	Received boss comments, reviewed old proposal and related boss comments. Created suggestions for proposal changes	Made concrete decisions in order to refine proposal by specifying hardware components and compression algorithm. Group collaboration to improve non-passing sections of proposal.	Still awaiting boss approval
Feb 17, 2022	Hiren Khurana	Awaiting boss comments, sourcing the specific hardware components that is required	Added tasks to the Jira task tracker and trying to figure how to get the touchscreen connected to the DE1	

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	Joshua Yellowley	Awaiting boss comments, thinking about task division and ticket handling	Set up Jira task tracker and tasks for each of us to work on. Built sprint board for first development sprint	Still awaiting boss approval
	Marco Ser	Still awaiting boss comments	Decided to use Jira for our ticket tracker and we divided up tasks amongst ourselves	
	Nicholas Ng	Still awaiting boss approval	Added tasks to the Jira task tracker and divided tasks up amongst group members	Still awaiting boss approval
Feb 21, 2022	Hiren Khurana	Recevied new boss comments	Revised initial proposal and clarified the comments regarding the issues	
	Joshua Yellowley	Received boss comments this morning, worked on revising proposal	Updated proposal and resubmitted	Boss Approval, however will go ahead implementing the approved components
	Marco Ser	Recevied new boss comments	Revised initial proposal to remove image processing and clarified comments regaring our GUI and touchscreen	
	Nicholas Ng	Did not pass boss level but received comments for revision	Updated proposal and resubmitted	boss approval
Feb 21, 2022	Hiren Khurana	Passed Boss level, started touchscreen implemenattion using teh given tutorial and exercise, got stuck	continued tutorial exercise given in resources, still stuck, figured the issue, need TAs help	could not attend lab on thursday for TAs help due to health reasons
	Joshua Yellowley	Passed boss level. Began work on setting up cloud components, created test bucket for cloud storage in AWS S3 for images and dynamoDB Table for profile data to be stored	Discussed plan for cloud storage and database implementation. Finalized initial design and how to connect components to the cloud	Need to figure out how to post process images from teh DE1 SoC in the cloud to be used by image recognition
	Marco Ser	Looked at Lab 2 of CPEN 311 to figure out how to interface with VGA controller	Run the lab code and determine how to use the vga controller to draw our design	
	Nicholas Ng	Passed boss level. Begin researching the ESP8266 wifi component and looking into implementation of functions used to upload data to the cloud.	Continued research and begining implementation of wifi component function calls	

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Mar 1, 2022	Hiren Khurana	Worked on Mid-Term Deliverables, Looked into camera implentation	Finished slideshow presentation for demos and deliverables due for March 4th 2022 for Midterm Report	Mid-terms lined up post reading break
	Joshua Yellowley	Worked on Mid-Term Deliverables, Looked into Lambdas	Finished slideshow presentation for demos and deliverables due for March 4th 2022 for Midterm Report	Just received Terasic and RFS board and our group will begin research and implementation
	Marco Ser	Brainstormed design ideas for VGA touchscreen	Worked on Mid-Term Deliverables, Looked into character pixel mapping	
	Nicholas Ng	Worked on Mid-Term Deliverables, Looked into using the rfs board to connect to wifi	Completed Mid-Term deliverables and preparation for demo.	midterms after reading break
Mar 3, 2022	Hiren Khurana	Got the camera Demo files, went through them	Working on the camera, reading docs, trying the demo	waiting on the tutorials to be released for the touchscreen and serial bus
	Joshua Yellowley	A bit bogged down by midterms, implementing lambdas to run when photo uploaded	Continuing work on Lambdas and AWS functions	
	Marco Ser	Busy with midterms, began implementing verilog VGA output	Completed mid-term deliverables and further working on VGA. Able to display letters and shapes	
	Nicholas Ng	a bit busy with midterms but continued implementing lua scripts	Completed mid-term deliverables for march 4th, reasearching more into wifi and helping with vga display for text	
Mar 8, 2022	Hiren Khurana	Tried exctractibng image from the camera	Working on the camera, reading docs, trying the demo	waiting on the tutorials to be released for the touchscreen and serial bus
	Joshua Yellowley	Built Lambdas to access dynamoDB and S3	Throwing a server error when trying to run the Lambda with API Gateway, looking into potential permission issues	
	Marco Ser	Tried to get VGA output working for multiple objects at once, ran into integration issues	Still some issues with multiple objects, working out a system for start and finish FSMs for each object	
	Nicholas Ng	setup the wifi chip by flashing firmware and running wifi connection and http requests	working on connecting the lua scripts to our backend lambdas	http and https urls

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Mar 10, 2022	Hiren Khurana	Restarted touchscreen with a new approach	going through AR1100 docs, understanding the working	waiting on the tutorials to be released for the touchscreen and serial bus
	Joshua Yellowley	Having trouble connecting HTTP post requests to HTTPS URL endpoints, will look into implementation options	Looking at swapping from Lambdas to running serverside processing on EC2 Instance instead.	
	Marco Ser	Able to display multiple objects/letters on VGA output	Desigining layout and implementing code for pinpad entry	
	Nicholas Ng	research on possible workarounds because of lua https limitations	Looking at swapping from Lambdas to running serverside processing on EC2 Instance instead.	
Mar 15, 2022	Hiren Khurana	Got the touchscreen to read and react to touchenable and touch disable	trying to get the touch coordinates	
	Joshua Yellowley	Launched basic EC2 instance to run cloud server	Swapped to EC2 built endpoints to listen for HTTP requests from Lua scripts	
	Marco Ser	Finished designing GUI and implementing several objects in GUI	Finish the initial GUI with the numpad and check and cancel buttons	
	Nicholas Ng	figured out a way to build a base64 string into an http request and came up with question whether base64 conversion should be done in C or nodemcu lua	making http requests to the EC2 backend server and being able to send a base64 string. helped with EC2 sending the image to the s3 bucket	
Mar 17, 2022	Hiren Khurana	wrote helper functions that convert touch corrdinated to scaled cordinates, reads registers, sets up the touchscreen	built and ISR and buffers for the read and write opteration. Touch screen completed, works as required	
	Joshua Yellowley	Signed up for Microsoft Face API and researched how to implement recognition from s3 bucket URL	Built server code to receive base64 images and store images with imageIDs in microsoft face API	
	Marco Ser	Finished working on the initial GUI page for pinpad, now working on figuring out a way to get nios to communicate with verilog to be able to switch screens	Help work on uploading a base64 string to an image and storing it in s3 and do further research on how to communicate with verilog using nios	

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	Nicholas Ng	researching on the uart to see how to send full images to the backend	helped with coming up with ideas for the implementation of the GUI interface with the touchscreen	
Mar 22, 2022	Hiren Khurana	Trying to get the NIOS interact with Verilog, looking at possible approaches	Going through resources to build a custom IP for the Master Sloavfe interface	
	Joshua Yellowley	Very busy with midterms and tests, looked into face recognition a little bit	Verified two faces are identical given a confidence score with microsoft Face API	
	Marco Ser	Very busy with midterms and tests, figured out a potential method to communicate to verilog using nios	Talk with team on the next steps of what everyone should do, might help pivot and work on getting camera feedback	
	Nicholas Ng	continued researching on ways to send full images to the backend with strings	helped out with the backend and sending hardcoded images to the backend	
Mar 24, 2022	Hiren Khurana	Build a custom IP that acts as a master slave module between NIOS and Verilog	getting the memory written by NIOS to act as commands to the components working	
	Joshua Yellowley	Worked on building mechanism to grab D8M camera data using VGA RGB values and pixel locations	Continue work on building camera data grabbing FSM	
	Marco Ser	Worked on getting the motor working	Bought Arduino motor shield to perhaps use along with the DE1-SoC	
	Nicholas Ng	found ways to implement uart in verilog with FSMs	worked on building a uart interface in verilog and communicating to my laptop	
Mar 29, 2022	Hiren Khurana	working on finishing the interfacing of Touchscreen, VGA, LEDs and HEX Display, all controlled by NIOS	Finishes the interfacing between touchscreen, VGA with multiple GUIs, LEDs and HEX display	
	Joshua Yellowley	Made breakthrough and able to grab pixel values from SRAM	Building FSM to grab pixel values one by one to connect to UART	
	Marco Ser	Finished writing PWM code to trigger the motors, works successfully	Integrating server code together so that it flows end to end	

Date	Name	Since last scrum	Working on today	Roadblocks
	Nicholas Ng	continued work on building FSMs to send data through the uart and into the serial connection	finished the uart transmission to the serial port and integrated this with d8m camera to send image data to the serial port	
Mar 31, 2022	Hiren Khurana	Tried to get the motor working with the DE1-SoC using GPIO	interfaced the motor with the NIOS and gave the Demo to the TAs	
	Joshua Yellowley	Finished Camera FSM	Connected Camera FSM to UART send FSM and able to retrieve camera data and build and image	
	Marco Ser	Integrated all of our asynchronous code together with promises	Testing with various photos to ensure correctness of Microsoft Face API and end to end workflow	
	Nicholas Ng	completed uart to wifi chip and fix all the bugs	integrated uart with the camera module and can now send images to the backend	
Apr 5, 2022	Hiren Khurana	trying to get the camera and UART to work with the rest	Integrated everything and ran multiple Tests	
	Joshua Yellowley	Working on integrating camera with other areas.	Small server side adjustments for Face API and implementing camera FSM reset mechanisms	
	Marco Ser	Almost finished integrating all server code together, added timeout to wait for all post requests to gather	Finish end to end workflow of the server code so that once the DE1-SoC sends an image, a response is returned automatically	
	Nicholas Ng	implemented and completed reading from the uart after getting a response from the backend on the wifi chip	integrating reading uart and response from wifi chip with the backend and then integrating this with the rest of the project (touchscreen, motor, gui)	
Apr 7, 2022	Hiren Khurana	testing the fully integrated project and working on clearing all bugs, worked on the presentation	DEMO DAY!!!	
	Joshua Yellowley	More end-end testing and code integration + created slides for final demo	DEMO DAY!!! but with Covid :(	
	Marco Ser	Added email support for successful/unsuccessful verification	DEMO DAY!!!	

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	Nicholas Ng	completed integration and also completed final demo presentation slides	DEMO DAY!!!	