

Scrum result sheet

Team number: 12

Date: 1/19/21

Neo	Scrum 1 master: Neo
	Since last scrum: Finished tutorial 1
	Working on today: Decide an idea as an group
	Roadblocks: We don't have good ideas :'(
Thomas	
	Since last scrum: Finished tutorial 1.1, checked past assignments
	Working on today: Do tutorial 1.2, brainstorm project ideas
	Roadblocks: Lack of creativity
Paul	
	Since last scrum: Finished up to tutorial 1.7, checked past projects
	Working on today: Come up with more ideas, finish tutorials
	Roadblocks: Lack of creativity
Mario	
	Since last scrum: Finished up to tutorial 1.1, Installed Quartus 15
	Working on today: Finishing Tutorials, Brainstorming Idea(s)
	Roadblocks: Doing the tutorials, ran into errors. Ideas are difficult to come up with.
Eleiah	
	Since last scrum: Almost done tutorial 1.2, looked at old projects
	Working on today: Make progress on tutorials. Brainstorm more ideas
	Roadblocks: I am a roadblock to my team :'(

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Roles

Neo: software (n811122w@yahoo.com.tw)

Thomas: software (thomaslapadat@gmail.com)

Paul: float (SW+HW)

Mario: hardware (mslongo@live.ca)

Eleiah: Hardware - (EleiahHengeveld@gmail.com) - github - Eleiah

Ideas:

- Covid Self Assessment/Tracking
- (E)Food Suggestion thing (Takes all your diet restrictions and stuff, desired calories etc and then puts together a meal plan that's different each week which has all your needed vitamins and stuff [would need a huge DB and algorithm])
- M delivery driver tracker
- Hockey referee replacement
- MP Home monitoring via texting (using Twilio)?
 - Can check if the room light is on with the ambient light and check the temperature
- shopping list tracker (not sure how a hardware sensor will come into play though)
- Secure mailbox for home deliveries (w/ Camera and phone notifications)
- Panic button (during home invasion, press button to alert police and start recording footage)
- Remote board game player (needs AR, upload cards onto app for a misc board game, project pieces onto the board, offer functionality to draw a card, play/show it, view hand etc, maybe use hardware acceleration for shuffling idk)
- Build a rover w/ bluetooth controls via xbox/ps4 controller, stream video + audio to mobile apps
- light/led control via phone app to ask for attention from your **significant other** (different WIFI, not close range)
- **(NEPT)Pacman battle royale: mobile devices connect to DE1 over Wifi/Bluetooth to issue controls, DE1 hardware handles game logic and streams video output to a monitor**
 - Turns out Pacman battle royale already exists, but any relatively simple multiplayer game could work
 - Rendering stuff might be kind of hard
 - Game Ideas:
 - BattleShip
 - Bomber Man
 - Pac Man
 - Snake
 - Board Game

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- (N)(T) Emergency services beacon
 - Use bluetooth for communication about services
- Crypto-mining/password decrypting?
- Lifestyle buddy - friendly reminders to get exercise, drink water, turn on the lights??

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Neo	Scrum 2 master: Thomas
	Since last scrum: Came up with an idea. Figured out what we need to submit for project proposal
	Working on today: Discuss ideas with TA, coming up with use cases, high level design of the concept
	Roadblocks: None!
Thomas	
	Since last scrum: Did tutorial 1.2, came up with some project ideas
	Working on today: Come up with use cases, brainstorm the UI layout
	Roadblocks: N/A
Paul	
	Since last scrum: Finished remaining tutorials, came up with ideas
	Working on today: Think about use cases, start thinking of high level designs
	Roadblocks: N/A
Mario	
	Since last scrum: Installed entire Altera suite version 15.0, finished all tutorials, came up with one idea
	Working on today: Working out idea details
	Roadblocks: n/a
Eleiah	
	Since last scrum: Upgraded equipment to be able to use DE1 on my computer
	Working on today: Make progress on tutorials.
	Roadblocks:

We decided on the idea of Multiplayer game (pacman battle royale)

- Battleship
- Bomberman
- Boardgame

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- Pacman
- Snake

Project Idea: Video Game (battleship)

- Visuals on DE1 to VGA || Visuals on mobile phone
 - Connecting multiple phones through wifi
- Should or could we use unity?
- Is it complex enough that we can ditch bluetooth?
 - If not, we can have bluetooth output audio to a speaker to hit the req
 - How many devices can the bluetooth support?
- Send game controls to the DE1 from phones over WiFi (or Bluetooth)
- If we somehow cannot hit the wifi requirement, just upload scores to MongoDB on AWS
- Can use the DE1 button to set up some settings for the game

Implementation

- Hardware
 - VGA display
 - DE1 uses some sort of library to handle graphics
 - Possibly split screen where the hit ships are displayed
 - 24x24 (10x10 pixel resolution) or 12x12 (20X20 pixel resolution) board
 - Ai Algorithm
 - Algorithm relies heavily on math which will be accelerated by the DE1 hardware
 - Used to calculate the best place to fire
- Software
 - Phone is connected to the DE1 using bluetooth
 - Phone has a app for the game
 - UI to enter coordinates
 - Buttons to activate power ups (different fire patterns)
 - Possibly a database online for the phone to connect to and store player data or highscores (Wifi)

Crunching numbers

Concurrency

Obstacles

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Date: 1/26/21

Neo	Scrum 3 master: Paul
	Since last scrum: Came up with some use cases
	Working on today: Discuss ideas with TA, user/market identification and requirement
	Roadblocks: None!
Thomas	
	Since last scrum: Did remaining tutorials, thought about basic UI layout (which views we need)
	Working on today: Work on the document and presentation
	Roadblocks: N/A
Paul	
	Since last scrum: Came up with some use cases and potential high level designs
	Working on today: Continue developing the high level designs and identify target markets + requirements
	Roadblocks: N/A
Mario	
	Since last scrum: Thought about some details of design, including the high level design possibilities
	Working on today: Continue with high level design, begin layout of presentation
	Roadblocks: n/a
Eleiah	
	Since last scrum: Finished Tutorials. Worked over a general implementation
	Working on today: Confirming idea. Work on presentation and documentation
	Roadblocks: N/A

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Tasks:

Requirements: Neo, Thomas, Eleiah?

High level 1: Paul, Eleiah

High level 2: Mario, Neo

Slides: Mario

Requirements by Friday

High-level design by Friday

Presentation over weekend

Talk about which ideas we want to settle on. Example: Grid vs coordinates

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Date: 1/28/21

Neo	Scrum 4 master: Mario
	Since last scrum: looked at high level designs and try to come up with a different design, came up with some more market, requirement and the use cases.
	Working on today: high level designs, and market requirement and uses cases
	Roadblocks:
Thomas	
	Since last scrum: Added some user + market requirements, came up with details for the second implementation
	Working on today: Finishing up the User + Market Identification document
	Roadblocks: N/A
Paul	
	Since last scrum: Fleshed out high level designs and provided some thoughts on target market + requirements
	Working on today: Completing initial high level design
	Roadblocks: n/a
Mario	
	Since last scrum: Thought about high level design, starting to draft for presentation
	Working on today: Write down high level design and its use cases to be ready for presentation next Thursday
	Roadblocks: n/a
Eleiah	
	Since last scrum: Worked on marketing and high level design
	Working on today:
	Roadblocks:

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Date: 2/02/21

Neo	Scrum 5 master: Eleiah
	Since last scrum: Finished high level design (2), worked on slides
	Working on today: Finishing up module 1 and submitting it. Prepare for the presentation.
	Roadblocks: N/A
Thomas	
	Since last scrum: Finished high level design, worked on slides, looked into Unity-AndroidStudio plugins for Bluetooth
	Working on today: Finish deliverables, prepare for presentation
	Roadblocks: N/A
Paul	
	Since last scrum: Completed high level design 1, worked on slides worked on AI algorithm
	Working on today: Finish up proposal and submit, prepare for presentation
	Roadblocks: Busy with other coursework
Mario	
	Since last scrum: Finished High Level Design (2) and helped with summaries, helped create slides, and looked over all documents to be handed in.
	Working on today: Preparing for presentation
	Roadblocks: Busy with CPSC 320
Eleiah	
	Since last scrum: Worked on slides, AI shooting algorithm.
	Working on today: Finishing up proposal/presentation, keep working on verilog for AI shooting algorithm.
	Roadblocks: Mid-term tomorrow

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Date: 2/04/21

Neo	Scrum 6 master: Neo
	Since last scrum: Prepared slides and finished up the presentation.
	Working on today: Will have another meeting to set up a roadmap and know exactly how to proceed as a team. Will start looking at cpp for game logic
	Roadblocks: N/A
Thomas	
	Since last scrum: Prepped slides, setup Unity environment, started working on a 2D android game tutorial
	Working on today: Finish unity tutorial
	Roadblocks: N/A
Paul	
	Since last scrum: Prepared for the presentation
	Working on today: Start looking into Bluetooth on app
	Roadblocks: N/A
Mario	
	Since last scrum: Helped edit presentation slides and look over submission. Worked on the actual presentation itself.
	Working on today: Will start getting timeline down in writing, will look into VGA board drawing for the game state.
	Roadblocks: N/A
Eleiah	
	Since last scrum: Worked on more details of the AI shooting algorithm. Worked on what to say for the presentation.
	Working on today: Keep working on verilog for the AI shooting algorithm, as well as look into how to use the bluetooth on RFS.
	Roadblocks: None

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Date: 2/09/21

Neo	Scrum 7 master: Thomas
	Since last scrum: Started an idea of game logic.
	Working on today: Perfecting game logic and look into bluetooth communication
	Roadblocks: My sad limited knowledge of c++.
Thomas	
	Since last scrum: Went through Unity tutorials and built a basic sample game. Built a simple menu.
	Working on today: Do the android tutorials. Learn to import custom android packages into Unity in preparation for Bluetooth communication
	Roadblocks: Slow progress since everything is new
Paul	
	Since last scrum: Started working on Bluetooth in Android Studio
	Working on today: Finish implementation by Thursday, start looking into integration
	Roadblocks: Need Unity project, bluetooth server for testing
Mario	
	Since last scrum: Designed layout of VGA game state, worked on basic algorithm for displaying sections of board.
	Working on today: Draw actual board on VGA
	Roadblocks: VGA with ARM chip
Eleiah	
	Since last scrum: Have been looking into how to use bluetooth on the RFS
	Working on today: Continue looking into how to use the bluetooth
	Roadblocks: None

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Date: 2/11/21

Neo	Scrum 8 master: Paul
	Since last scrum: A little bit of game logic, and mostly researching about taking inputs from bluetooth.
	Working on today: Continue looking into bluetooth communication
	Roadblocks: bluetooth communication
Thomas	
	Since last scrum: Worked on importing plugins into Unity
	Working on today: Continue trying to integrate Unity with Android studio
	Roadblocks: Plugins built in Android studio aren't working / building properly
Paul	
	Since last scrum: Continued Bluetooth implementation, investigated Unity and Android integration
	Working on today: Android Bluetooth code, integration between Unity and Android
	Roadblocks: Android Unity integration
Mario	
	Since last scrum: Finished displaying game board via VGA, started code for printing letters and numbers for player display.
	Working on today: Starting a module to recolour a certain selected square in order to display hits and misses.
	Roadblocks: The 79th column of pixels >:(:'(
Eleiah	
	Since last scrum: Looked into bluetooth. Worked on the prototype of the algorithm in verilog
	Working on today: Talk to TAs about bluetooth. Continue to work on the AI verilog
	Roadblocks: None

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Date: 2/16/21

Neo	Scrum 9 master: Mario
	Since last scrum: Finished gamelogic excluding the bluetooth communication.
	Working on today: bluetooth communication
	Roadblocks: bluetooth communication
Thomas	
	Since last scrum: Working on importing Unity as a library into Android studio
	Working on today: Continuing work on Android-Unity integration
	Roadblocks: Android-Unity integration
Paul	
	Since last scrum: Finished template Bluetooth app
	Working on today: Work with Thomas to get Android-Unity integration working, start looking into Bluetooth
	Roadblocks: Android-Unity integration, lack of Bluetooth server
Mario	
	Since last scrum: Made pseudocode for the translation part for changing the colours of squares
	Working on today: Writing the verilog for the translation module and begin basic testing
	Roadblocks: Writing letters (tedious algorithm)
Eleiah	
	Since last scrum: Looked slightly more into bluetooth and worked on AI algorithms.
	Working on today:
	Roadblocks:

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Date: 2/18/21

Neo	Scrum 10 master: Eleiah
	Since last scrum: Looked into communication with the console and discussed briefly with hardware team.
	Working on today: Communication with console / bluetooth. Making temporary game on command line
	Roadblocks: Communication protocols
Thomas	
	Since last scrum: Worked with Paul on integrating Unity Library in Android, built basic snap-to-grid POC and started writing game client logic
	Working on today: Continuing to write logic for board and ships
	Roadblocks: N/A
Paul	
	Since last scrum: Working on Android/Unity integration (integrated our existing Android and Unity projects), briefly looked into RFS card
	Working on today: Message passing between Android/Unity
	Roadblocks: lack of time -.-
Mario	
	Since last scrum: Wrote the Verilog for the specific square drawing module
	Working on today: Testing the module with testbenches and doing some "play" testing.
	Roadblocks: Incorporating buttons to represent different switches
Eleiah	
	Since last scrum: Written up hunt portion of the ai algorithm in verilog
	Working on today: Adding a handshake to the hunt AI Alg and work on the target algorithm
	Roadblocks:

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Date: 2/23/21

Neo	Scrum 11 master: Neo
	Since last scrum: Have gamelogic playable on cli.
	Working on today: <ul style="list-style-type: none"> • fix my “features” • Database? • Talk about integrating with HW team
	Roadblocks: communication
Thomas	
	Since last scrum:
	Working on today: Continuing to work on board placement logic
	Roadblocks: <ul style="list-style-type: none"> • UI scaling issues
Paul	
	Since last scrum: Successful message passing between Unity and Android
	Working on today: <ul style="list-style-type: none"> • Read Neo’s game engine • Learn more about Unity • Develop interfaces for Unity and Android communications
	Roadblocks:
Mario	
	Since last scrum: Finished translator module and basic testing of translator module.
	Working on today: Starting to make a module for writing high scores using the RFS wifi.
	Roadblocks: Don’t know much about wifi module at the moment
Eleiah	
	Since last scrum: Almost completed targeting algorithm from AI
	Working on today: Finish up targeting AI and try to implement the handshake
	Roadblocks:

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Date: 2/25/21

Neo	Scrum 12 master: Thomas
	Since last scrum: Got feedback from Paul and worked on it.
	Working on today: Working on fixing / changing the gamellogic
	Roadblocks: communication
Thomas	
	Since last scrum: Built basic Node.js + MongoDB backend on AWS, fixed drag and drop for ships on Unity UI
	Working on today: Sharing ship coords with Android for Bluetooth communications, adding support for ship sizes > 1x1 tiles
	Roadblocks:
Paul	
	Since last scrum: Got wifi working with app (can do GET request to server to get records), define Android/Unity interface, looked at Neo's code
	Working on today: System block diagram, update Bluetooth code, create Android main menu, Google OAuth
	Roadblocks:
Mario	
	Since last scrum: Cleaned up translator module, did more thorough testing with both Modelsim and Quartus. Looked into using Wifi with the RFS board.
	Working on today: Trying to implement Wifi with RFS board, Coordinate with Neo regarding logic/translator integration
	Roadblocks: Looking for wifi resources
Eleiah	
	Since last scrum: :(
	Working on today: Finish algorithm for AI
	Roadblocks:

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Date: 3/01/21

	Scrum 13 (moved to Monday due to midterms of majority teammate) master: Paul
Neo	Since last scrum: .Have gamelogic mostly implemented in both single player mode and multiplayer mode. Talked to the hardware team about communication. Talked to UI team about input structure. Unit testing
	Working on today: Hopefully nothing until after tuesday. Working on module 2 deliverables. Finishing the UI input interface . HW communication?
	Roadblocks: Slightly blocked on simulating the input structure from cli but may overlook that since it won't be used. Lack of time
Thomas	Since last scrum: Finished ship placement screen and added export function to pass ship placement to server
	Working on today: Add Google OAuth2 to server API endpoints and add attack screen (if time permits)
	Roadblocks: Design team obligations
Paul	Since last scrum: Menu moved to Android, Google Auth on the front-end
	Working on today: Update Bluetooth code, Adding user customization, Working on the slides/presentation, C code for RS232
	Roadblocks: lack of time
Mario	Since last scrum: Met with Neo to discuss VGA module integration with game logic, found out I am missing some elements in the VGA module.
	Working on today: Getting Wifi working, or at least a template ready. Preparing presentation and report.
	Roadblocks: CPEN 311 VGA-Core may not work with the platform designer, but the algorithm should still work. May change implementation.
Eleiah	Since last scrum: Finished AI algorithm and wrote up a testbench
	Working on today: Work on slides and presentation. Will look more into bluetooth.
	Roadblocks:

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Date: 3/04/21

	Scrum 14 master: Mario
Neo	Since last scrum: m2 assessment
	Working on today: 331 midterm tomorrow
	Roadblocks: 331 midterm
Thomas	Since last scrum: m2 assessment + Added Google OAuth2 to backend
	Working on today: 331 midterm tomorrow
	Roadblocks: 331 midterm
Paul	Since last scrum: Fixed HTTP calls to backend, M2 assessment
	Working on today: Incorporating the Login endpoint, implementing function interfaces, share debug.keystore with Thomas
	Roadblocks: 331 Midterm
Mario	Since last scrum: Worked on testbench for squaremapper function, able to test individual blocks, worked on module two assessment
	Working on today: Wi-Fi
	Roadblocks: Wi-Fi :(
Eleiah	Since last scrum: Updated tb and commented code. Worked on and finished m2.
	Working on today: Bluetooth
	Roadblocks:

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Date: 3/09/21

	Scrum 15 master: Eleiah
Neo	Since last scrum: Fixed some bugs. Working on changing the status of boxes hit.
	Working on today: Working on changing the status of boxes hit.
	Roadblocks: N/A
Thomas	Since last scrum: Updated server endpoints to prevent access to other users' data
	Working on today: Continue working on attack screen
	Roadblocks: N/A
Paul	Since last scrum: Worked with Thomas (added Java functions for Unity to call, shared debug.keystore), app calls /login
	Working on today: Work on message parsing, user customization of color, Bluetooth gating
	Roadblocks: N/A
Mario	Since last scrum: Tried to get Wi-Fi working with Eleiah, added Wi-Fi module to the Quartus schematic, edited code to fit around it.
	Working on today: Will be going to Lab on thursday to ask questions about Wi-Fi, as well as get help from more experienced people
	Roadblocks: Wi-Fi not working with serial communication
Eleiah	Since last scrum: Tried to get bluetooth working. Created something in qsys but don't know how to add c code. Tried going to the lab but TAs were not available.
	Working on today: Continue working on bluetooth and talk to TAs on thursday.
	Roadblocks:

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Date: 3/11/21

	Scrum 16 master: Neo
Neo	Since last scrum: Finished setting up information AI backend needs
	Working on today: Front end information.
	Roadblocks: N/A
Thomas	Since last scrum: Worked on attack and defend screens. Redid state management.
	Working on today: Continuing to work on the attack screen, aiming to finish attack view before next meeting
	Roadblocks: N/A
Paul	Since last scrum: Parsing Bluetooth messages, implement custom colours
	Working on today: Custom colour picking continued, matches screen
	Roadblocks: N/A
Mario	Since last scrum: Got Bluetooth working on a character by character basis, able to send strings from laptop
	Working on today: Figuring out the capacity of bluetooth, trying to get Wi-Fi working :)
	Roadblocks: N/A
Eleiah	Since last scrum: Looked more into bluetooth and how to make our full design in qsys
	Working on today: Bluetooth and wifi with Mario
	Roadblocks: N/A

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Date: 3/16/21

	Scrum 17 master: Thomas
Neo	Since last scrum: Finished test cases for utils functions
	Working on today: communication
	Roadblocks: N/A, possibly elec 331 and midterms coming up
Thomas	Since last scrum: Finished attacking and defending screens, worked with Paul on integrating Unity with Android Studio (working).
	Working on today: Add paging to the match history results And update matches results to include player names
	Roadblocks: N/A, possibly elec 331
Paul	Since last scrum: Worked with Eleiah on Bluetooth for DE1
	Working on today: Display match history, get app handling multiple Bluetooth device
	Roadblocks: Need match history API updated on the backend 😓
Mario	Since last scrum: Met with Eleiah on Thursday to discuss Bluetooth, began using provided Graphics hardware code to implement VGA display, got reset board working.
	Working on today: Get squaremapper function working with new Graphics code, center the display, try to eventually talk about Wifi with other groups
	Roadblocks: N/A
Eleiah	Since last scrum: Met with Paul to test connection between DE1 and Android app. Met with Mario to go over testing bluetooth. Set up the BT protocols and dual GPIO ports for two RFS cards.
	Working on today: Clean up code, platform designer.
	Roadblocks:

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Date: 3/18/21

	Scrum 18 master: Paul
Neo	Since last scrum: Research bluetooth code integration with c++
	Working on today: Working on the integration
	Roadblocks: N/A. Midterms
Thomas	Since last scrum: Updated matches to keep track of user names (and match time). Introduced paging in match responses.
	Working on today: Add backbutton for forfeit confirmation to Unity UI
	Roadblocks: N/A
Paul	Since last scrum: Displaying user matches
	Working on today: Fix bugs with user matches, figure out multiplayer bluetooth
	Roadblocks:
Mario	Since last scrum: Finished the squaremapper function to be useable by C, so all VGA functionality now works via C scripts. Wifi functionality has been hooked up, but currently not properly sending AT commands.
	Working on today: Getting Wifi to work with AT commands, try to flash scripts without bricking the RFS board :)
	Roadblocks: Waiting for Wifi dongle to be delivered
Eleiah	Since last scrum: Going through tutorials and editing the platform designer to conform it to our needs
	Working on today: Testing double bluetooth and continue working on hardware design
	Roadblocks:

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Date: 3/23/21

	Scrum 19 master: Mario
Neo	Since last scrum: Finished up BT protocols, some VGA communication. Basic integration
	Working on today: Integration
	Roadblocks: ELEC 331
Thomas	Since last scrum: Added back button listener (forfeit menu option)
	Working on today: Setup forfeit message communications, look into particle system for more active UI
	Roadblocks: CPSC 340 + ELEC exam
Paul	Since last scrum: Cleaned up the matches screen, started on Bluetooth multiplayer work
	Working on today: Bluetooth multiplayer
	Roadblocks: Lack of time
Mario	Since last scrum: Met with Neo to discuss VGA integration, got AT commands working with Wifi.
	Working on today: Flash Wifi board, maybe get text working for more interactive feel on VGA screen
	Roadblocks: Flashing the board is scary
Eleiah	Since last scrum: Found some problems with the using two bluetooth cards, with blocking. Might have to create a handshake.
	Working on today: Improve and find a better way to write the firmware BT protocols
	Roadblocks:

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Date: 3/25/21

	Scrum 20 master: Eleiah
Neo	Since last scrum: Discuss M2 evaluation with TA and professor
	Working on today: Integration
	Roadblocks: ELEC 331 exam
Thomas	Since last scrum: Added dynamic background to UI (particles), integrated with Paul's forfeit() function
	Working on today: Redo ship dragging logic (instead of using anchors, allow dragging of the entire ship)
	Roadblocks: ELEC exam
Paul	Since last scrum: Bluetooth threads, multiplayer lobby
	Working on today: Fix Bluetooth bugs, work with Thomas on integration
	Roadblocks: CPSC 304 Project :(
Mario	Since last scrum: Playing around with Hyperterminal, trying to get Wifi dongle to work and transmit stuff
	Working on today: Continue to mess with Wifi dongle and try to get HTTP protocols on it
	Roadblocks: Exam Tomorrow, No Reset Button on Wifi dongle
Eleiah	Since last scrum: Appointments all of Tuesday and mental issues Wednesday
	Working on today: Working on the BT bugs
	Roadblocks:

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Date: 3/30/21

	Scrum 21 master: Neo
Neo	Since last scrum: 90% done integration. Just minor things for creating the game. Met up with Mario to test integration between game engine and VGA.
	Working on today: Perfecting the integration. Dealing with forfeit message. Changing bluetooth protocols to use 16 characters only.
	Roadblocks: AI algorithm function calls
Thomas	Since last scrum: Overhauled piece system, ships now built into the board
	Working on today: Fix drag and drop bugs, work with Paul to get color themes integrated. Add a gameover screen if time permits.
	Roadblocks: N/A
Paul	Since last scrum: Worked with Thomas on Unity integration, fixed Bluetooth code
	Working on today: Fixing the Bluetooth protocol to use 16 character messages. Look into POST alternatives in-app for game results, look into Lua scripts
	Roadblocks: Integration
Mario	Since last scrum: Met with Neo to discuss C++ integration with graphics code, fixed some bugs. Created a better way to indicate that ships have been sunk.
	Working on today: Create a way to indicate loss, and MAKE WI-FI WORK.
	Roadblocks: WIFI >:(
Eleiah	Since last scrum: Changed up BT protocol to not need a main or interrupts.
	Working on today: Change bit flipper with AI_Alg and create C protocols for AI_Alg.
	Roadblocks:

Remaining Timeline:

- Friday - Initial integration
-
- Report - 2 pages per person + 2 pages for appendix per person + references :)
- Slides -

Scrum result sheet

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Date: 4/01/21

	Scrum 22 master: Thomas: "Neo you start"
Neo	Since last scrum: Added wifi functionality. Integration. Code documentation.
	Working on today: Integration testing
	Roadblocks: AI function calls :'(
Thomas	Since last scrum: Fixed dragging, worked w/ Paul to integrate color import, added gameover screen, indicates when ships sink, can now play full game
	Working on today: Reverse the y coordinates for consistency with hardware. Work on integration with Paul and Neo, add backend testing over the weekend
	Roadblocks: N/A
Paul	Since last scrum: Worked with Mario to get the Lua script working, spent time with Thomas regarding integrating with Unity, updated app for new Bluetooth protocol
	Working on today: Check through placement message parsing, start testing, work on integration bugs
	Roadblocks: N/A
Mario	Since last scrum: Got Pixel4a for testing purposes, Created Loss Indication and Coordinate system for VGA display, RFS board was flashed with Wifi lua scripts and tested, spoke with Paul & Neo regarding debugging
	Working on today: Work with Eleiah to compile all hardware components and work with Neo to test full product
	Roadblocks: None!?
Eleiah	Since last scrum: Working on integrating AI_Alg into Qsys, needed to change the input outputs to work with the Avalon interface
	Working on today: Finish up the conversion of the Ai_Alg to Avalon input outputs. Write up the C file for Neo to use to interface with Ai_Alg
	Roadblocks: acos != cos

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Date: 4/06/21

	Scrum 23 master: Paul: "Neo you start"
Neo	Since last scrum: INTEGRATION. Reveal ship functionality. Easy/Hard AI mode functionality.
	Working on today: Report. Documentation. Demo
	Roadblocks: ELEC 331
Thomas	Since last scrum: INTEGRATION!
	Working on today: Automated testing for backend (cloud)
	Roadblocks: ELEC 331
Paul	Since last scrum: INTEGRATION, rearranged files, worked on Android automated UI tests
	Working on today: Finishing up automated UI tests, cleaning up Android code
	Roadblocks: ELEC 331
Mario	Since last scrum: INTEGRATION! Worked with Eleiah to get AI working
	Working on today: Documentation, Testing/Testbenches, Recording video for Demo
	Roadblocks: Verilog is annoying to test
Eleiah	Since last scrum: Integration and upgraded the AI algorithm to weight consecutive hits more.
	Working on today: Adding comments and double checking code. Testing and documentation
	Roadblocks:

Discuss report + slides + video next scrum

Scrum result sheet

Team number: 12

Date: 4/08/21

	Scrum 24 master: Mario: "Neo you start"
Neo	Since last scrum: Documentation, added comments.
	Working on today: Demo, report discussion.
	Roadblocks: N/A
Thomas	Since last scrum: Wrote automated tests for cloud functions, setup Travis CI for regression testing
	Working on today: Clean up code and work on module 3 deliverables
	Roadblocks: N/A
Paul	Since last scrum: Finished up tests, added comments
	Working on today: Work on deliverables (demo, slides, report)
	Roadblocks: N/A
Mario	Since last scrum: Worked on videos and got a start on documentation
	Working on today: Finish Documentation and Videos, work on deliverables
	Roadblocks: Lots of projects due
Eleiah	Since last scrum: Commenting code and converting TBs for Ai_Alg to new input output format
	Working on today:
	Roadblocks:

Slides

Video next scrum

- Mario playing
- People commenting on how/why parts work

Demo:

- Go through slides
 - Description of the project
 - Components
 - Diagram of how all components are connected
 - Discuss meeting needs
 - Diagram of cloud backend (for Thomas)
- Go through main screens
 - Sign-In (Paul)

Scrum result sheet

Team number: 12

- Main (Paul)
 - Stats
 - Options
- Game modes
 - Hard AI (10 minutes)
 - Unity Interface (Thomas) *Do not mention communication yet*
 - AI (Eleiah)
 - How it chooses where to fire and how weights are in hunt vs target mode
 - Forfeit
 - WiFi (Mario)
 - Stats / Backend(Thomas)
 - Change colors
 - Easy AI
 - Unity/Android communication (Paul/Thomas)
 - What makes it “easy” AI (Neo)
 - Goes on until a ship is sunk (hopefully but no need for force it)
 - Multiplayer (7 minutes)
 - Can be fast
 - Game engine (Neo)
 - Talk about Bluetooth communication (Paul/Eleiah/Neo)
 - VGA Graphics (Mario)
- Testing if have time
 - All go through

Scrum result sheet

Team number: 12

Date: 4/13/21

	Scrum 25 master: Eleiah:
Neo	Since last scrum: Demo prep. Report. Working on the codes
	Working on today: Report
	Roadblocks: N/A
Thomas	Since last scrum: Cleaned up code, worked on presentation
	Working on today: Present, then work on report
	Roadblocks: N/A
Paul	Since last scrum: Worked on the presentation and added notes to the report, added logout
	Working on today: Finishing up the report
	Roadblocks: Writer's block
Mario	Since last scrum: Worked on VGA and Validation sections of report, created testbench for the CrossBox module, and worked on the presentation.
	Working on today: Finish my parts of the report, clean up Git
	Roadblocks: N/A
Eleiah	Since last scrum: Updated Ai tb to the memory mapped format, added Ai and part of bluetooth to the report. Updated what i'm supposed to say for the presentation
	Working on today: Finish bluetooth for the report and other sections.
	Roadblocks: N/A