

Meeting of Minutes W03

Date: 02/02/2023

Time: 8:20 - 8:50

Attendees/Role:

Member #1: Adonis Davis

Member #2: Carson Henry

Member #3: Kelly Ngoc Hoang

Member #4: Samuel Jeffries

Member #5: Bailey Wyan

Discussion: Request to change meeting of minutes to virtual meeting at 2:30pm, to accommodate team schedules. Verification of parts ordered, and estimation of parts arrival.

Product Backlog:

Req No.	Obj No.	Requirement	Verification: T - Test, D - Demonstrate, I - Inspection, A - Analysis
1	1, 2	The system shall include a microcontroller.	
2	1, 2	The system shall include a probe arm.	
3	1, 2	The probe arm shall include a water thermometer.	
4	1, 2	The probe arm shall include a pH sensor.	
5	1, 2	The system shall include a display screen.	
6	1	The TankMate shall record the water temperature within the tank.	
7	1	The water thermometer shall measure temperature from 0-40 degrees celsius.	
8	1	The water thermometer shall be accurate to the hundredth of a degree, as factory defined by the manufacturer.	
9	1	The water thermometer shall record	

		an accurate measurement to the tenth of a degree.	
10	1	The TankMate shall record the pH balance within the tank.	
11	1	The pH sensor shall measure pH from a range of 0 to 14 units.	
12	1	The pH sensor shall be accurate to the hundredth of a unit as factory defined by the manufacturer.	
13	1	The pH sensor shall record an accurate measurement to the tenth of a unit.	
14	1, 2	The system shall include a mobile application.	
15	1, 2	The mobile application shall run on at least one mobile device running a version of the Android operating system.	
16	1, 2	The mobile application shall receive data from the microcontroller.	
17	1, 2	The mobile application shall display the data received to the user.	
18	1, 2	The mobile application shall utilize touchscreen interaction, via mobile device.	
19	1, 2	The microcontroller used within the measurement device shall have integrated bluetooth connectivity.	
20	1, 2	The microcontroller shall connect to Wi-Fi.	
21	1, 2	The microcontroller's integrated Wi-Fi transmitter shall transmit data at rates as specified by the manufacturer.	
22	1, 2	The microcontroller's integrated Wi-Fi transmitter shall conform to the range as specified by the manufacturer.	
23	1, 2	The mobile application shall display	

		transmitted data recorded by the probe arm.	
24	2	The display screen shall show temperature and pH readings.	
25	2	The microcontroller shall encrypt the data before sending it to the mobile application.	
26	2	The microcontroller shall utilize a Wi-Fi transmitter to send recorded data to a Wi-Fi signal.	
27	2	The Wi-Fi transmitter shall follow the 47 CFR 5.107 standard under the Code of Federal Regulations.	
28	2	The mobile application developed shall adhere to a recognized coding standard.	
30	2	The TankMate's components shall be compatible with the software development kit.	
31	3	The TankMate shall have a motor-operated probe arm that can move up and down.	
32	3, 5	The TankMates probe arm movement speed shall be harmless to marine life.	
33	3, 5	The probe arm shall be waterproof.	
34	3, 5	The probe arm shall have no sharp edges.	
40	4	A relay shall be included to turn off measurement functions when the probe arm is removed from the water.	
41	4	The system connection shall adhere to IEEE standards.	
50	5	The probe arm shell shall be made from food-safe HDPE plastic.	

51	3, 5	The TankMate shall be attachable to the tank.	
52	3, 5	The TankMate shall be removable from the tank.	
53	1, 2, 5	The microcontroller shall send hourly temperature and pH statistics to a wireless mobile application.	
54	1, 2, 5	The mobile application shall send a displayed alert to the user when the temperature or pH reaches a level that is dangerous to the marine life within the tank.	

Sprint Backlog:

ID	Date Assigned	Assignee	Description	Due Date	Complete Date or OBE	Artifact
1	Jan 16	All	Create and complete Minutes Week 2	Jan 20	Jan 19th	
2	Jan 16	Kelly	Draft the interface mockup	Jan 27	Jan 26th	
3	Jan 9	Carson	Provided final presentation template	Jan 15		
4	Jan 16	Bailey, Adonis, Carson	Created rough draft for the final presentation	Jan 27	Jan 24th	
5	Jan 9	Sam	Create Minutes Week 2	Jan 15		
6	Jan 9	Sam	Develop mock software for components	Jan 27	Jan 24th	
7	Jan 19	Adonis, Bailey	Create more detailed hardware connection diagram	Jan 27	OBE	Bailey switched to assist on 02/03/23
8	Jan 9	Sam, Kelly	Download Android Studios and create "main" file	Jan 20th	Jan 18th	
9	Jan 24	Sam, Kelly	Demonstrate a draft of the interface in Android Studios to the team	Feb 10th		
10	Jan 26	Carson	Create Raspberry Pi Desktop VM, establish SSH connection to the	Feb 10th		

- Sensor Relay mock code completion
- Schedule change email sent to Buck
- New Task: Assist Adonis with hardware connection diagram

Adonis:

- Create more detailed hardware connection diagram

Carson Henry

- Create Raspberry Pi Desktop VM, establish SSH connection to the network (encryption)

Week Finish: 02/03/23