WORK PACKAGE – MOBILE HARDWARE SAMPLER

Version: 2.0

Datum: 05.05.2022

DOCUMENT VERSIONS

Versionsnr.	Datum	Autor	Änderungsgrund / Bemerkungen
2.0	05.05.2022		Review of work packages

CONTENT

1. ORGANISATION

Project name: MHS	WP-№ 1	WP description: “Organisation” (Stage 1)
Start of WP: 21.03.22	End of WP: 28.04.22	WP responsible: Lena
Results: • blueprint for project realisation		
Tasks: • defining code structure • defining device architecture • project planning and meetings		
Requirements: • hardware parts		
Duration: 158h		

2. RESEARCH

Project name: MHS	WP-№ 2	WP description: “Research” (Stage 1)
Start of WP: 21.03.22	End of WP: 06.05.22	WP responsible: Dennis
Results: • hardware parts, cpp & teensy introduction		
Tasks: • deciding on and ordering parts • read documentation (teensy and cpp)		
Requirements: • motivated project members		
Duration: 42h		

3. SETUP

Project name: MHS	WP-№ 3	WP description: “Setup” (Stage 1)
Start of WP: 24.04.22	End of WP: 06.05.22	WP responsible: Lucas
Results: • working hardware prototype		
Tasks: • assembly of hardware parts (soldering) • setting up development environment • first hardware tests		
Requirements: • hardware parts • soldering equipment		
Duration: 25h		

4. BACKEND

Project name: MHS	WP-№ 4	WP description: “Backend” (Stage 1)
Start of WP: 02.05.22	End of WP: 29.05.22	WP responsible: Lucas
Results: • working software base to build frontend upon		
Tasks: • managing input handling / interrupt handler ○ midi circuit, rotaries, etc. • coding window handling • coding memory management (flash chip / sd-card)		
Requirements: • working hardware prototype (WP3) • working development environment (WP3)		
Duration: 112h		

5. FRONTEND

Project name: MHS	WP-№ 5	WP description: “Frontend” (Stage 1)
Start of WP: 16.05.22	End of WP: 12.06.22	WP responsible: Lena
Results: • working navigatable menu • abstract interface for modules		
Tasks: • menu design (master volume control) • coding abstract interface for UI class / function implementation		
Requirements: • working backend (WP4)		
Duration: 112h		

6. PCB DESIGN

Project name: MHS	WP-№ 6	WP description: “PCB Design” (Stage 1)
Start of WP: 02.05.22	End of WP: 22.05.22	WP responsible: Alex
Results: • finished and working pcb		
Tasks: • schematics • pcb design in Kicat • pcb printing		
Requirements: • printing appointment • working hardware (WP3)		
Duration: 25h		

7. SAMPLE LOADING

Project name: MHS	WP-№ 7	WP description: “Sample loading” (Stage 1)
Start of WP: 30.05.22	End of WP: 19.06.22	WP responsible: Dennis
Results: • sample loading		
Tasks: • sample pack folder structure with config files (if needed) • midi mapping / key mapping according to order of samples in memory • interaction with memory management class • ui interaction		
Requirements: • memory management class (WP4)		
Duration: 85h		

8. CASE DESIGN

Project name: MHS	WP-№ 8	WP description: “Case Design” (Stage 1)
Start of WP: 09.05.22	End of WP: 29.05.22	WP responsible: David
Results: • case		
Tasks: • design based on pcb		
Requirements: • PCB (WP6)		
Duration: 25h		

9. AUDIO

Project name: MHS	WP-№ 9	WP description: “Audio” (Stage 1)
Start of WP: 17.06.22	End of WP: 24.07.22	WP responsible: Alex
Results: • basic audio processing		
Tasks: • trigger midi • record midi • digital effects and filters • menu extension: controlling fx • playback o audio settings: bpm and metronom, playback mode • 2-8 voice polyphony (concurrent triggering of samples)		
Requirements: • sample loading (WP7)		
Duration: 141h		

10. VELOCITY SENSITIVE PADS

Project name: MHS	WP-№ 10	WP description: “Velocity Sensitive Pads” (Stage 2)
Start of WP: 18.07.22	End of WP: 24.07.22	WP responsible: David
Results: • added velocity sensitive pads to trigger samples		
Tasks: • integration into circuit • software adjustments		
Requirements: • Audio (WP9)		
Duration: 25h		

11. FINAL TESTING

Project name: MHS	WP-№ 11	WP description: “Final Testing” (Stage 2)
Start of WP: 08.08.22	End of WP: 21.08.22	WP responsible: Dennis
Results: • added velocity sensitive pads to trigger samples		
Tasks: • integration into circuit • software adjustments		
Requirements: • Audio (WP9)		
Duration: 100h		

12. DOCUMENTATION

Project name: MHS	WP-№ 12	WP description: “Documentation”
Start of WP: 21.03.22	End of WP: 07.08.22	WP responsible: Lena
Results: • well documented project		
Tasks: • code comments • meeting records • documentation of finished work • unified document		
Requirements: • working progress		
Duration: 50h		