

Project handbook  
Wetterstation  
001

Version 8

Project manager: Brückl Matthias

Date: 24.11.2025

# Content

<b>1</b>	<b>Project plans.....</b>	<b>5</b>
1.1	Project Assignment.....	5
1.2	Project Objectives (objectives, non-objectives).....	6
1.3	Description of Pre- and Post Project Phase.....	7
1.4	Project Environment Analysis.....	8
1.5	Relationship to Other Projects and the Organisations's Strategy.....	9
1.6	Project Organisation Chart.....	10
1.7	Plan of Objects of Consideration of the Project.....	11
1.8	Work Breakdown Structure (WBS).....	12
1.9	Project Work-Package Specification.....	13
1.10	Project Responsibility Matrix.....	16
1.11	Milestoneplan.....	17
1.12	Project Bar Chart.....	18
1.13	Resource Plan.....	19
1.14	Project Cost Plan.....	20
1.15	Project Communication.....	21
1.16	Project „Rules“.....	22
1.17	Project Risk Analysis.....	23
1.18	Project Documentation.....	24
<b>2</b>	<b>Project Start.....</b>	<b>25</b>
2.1	Minutes– Project Start.....	25
<b>3</b>	<b>Project Co-ordination.....</b>	<b>26</b>
3.1	Approval of Work-packages.....	26
3.2	Minutes – Project Co-ordination.....	26
<b>4</b>	<b>Project Controlling.....</b>	<b>27</b>
4.1	Project Status Report.....	27
4.2	Additional Project Status Reports.....	28
4.3	Minutes – Project controlling.....	28
<b>5</b>	<b>Project Close Down.....</b>	<b>29</b>
5.1	Project Close Down Report.....	29
5.2	Minutes – Project Close Down.....	30

# Document versions

Versionno.	Date	Change	Author
1	24.11.25	Start	Brückl M.
2	28.11.25	Objectives and project organization completed	Aistleitner D.
3	29.11.25	Completion till 1.5	Bergbauer K.
4	30.11.25	Completion till 1.9	Bergbauer K. / Aistleitner D.
5	01.12.25	1.4 & 1.9	Aistleitner D.
6	02.12.25	Finishing the Parts for Project Handbook Part 1 up to 1.10	Brückl M.
7	24.01.26	Optimizing project environment graphic	Bergbauer K.
8	25.01.26	Update according the feedback	Brückl M.
9	01.02.26	Update according the feedback and complete 1.13 to 2	Brückl M.
10	02.02.26	First Weekly Report	Bergbauer K.



# 1 Project plans

## 1.1 Project Assignment

<div>Wetterstation 001</div> <div>PROJECT- ASSIGNMENT</div>																							
<b>Project start event:</b> <ul style="list-style-type: none"> <li>Submission of the Project shandbook</li> </ul>	<b>Project start date:</b> <ul style="list-style-type: none"> <li>12.01.2026</li> </ul>																						
<b>project close down event in terms of content:</b> <ul style="list-style-type: none"> <li>Active usage of the weatherstation</li> </ul> <b>Formal project close down event:</b> <ul style="list-style-type: none"> <li>Handing the weatherstation over to the teacher</li> </ul>	<b>Project close down dates:</b> <ul style="list-style-type: none"> <li>10.06.2026</li> </ul>																						
<b>Project objectives:</b> <ul style="list-style-type: none"> <li>Functioning weather station</li> <li>Energy-independent power supply</li> <li>Web based data analyse</li> <li>Minimalist Case</li> </ul>	<b>Non-objectives:</b> <ul style="list-style-type: none"> <li>No complex data processing</li> <li>No guarantee of absolute accuracy of the measurement data.</li> <li>No use of cloud storage (e.g., Google Drive, AWS, Azure).</li> <li>No failover protection through redundant hardware components.</li> </ul> No remote control																						
<b>Main tasks (Project phases):</b> <ul style="list-style-type: none"> <li>Condiong Frontend</li> <li>Read out the date of the sensors</li> <li>Coding a small database</li> <li>Coding APIs</li> <li>3d modelling the Case</li> </ul>	<b>Project resources and costs*:</b> <table border="1"> <thead> <tr> <th>resource/type of cost</th> <th>unit</th> <th>Costs (€)</th> </tr> </thead> <tbody> <tr> <td>Raspberry Pi 2w / A</td> <td>1</td> <td>30€</td> </tr> <tr> <td>BME280 / A</td> <td>1</td> <td>5€</td> </tr> <tr> <td>DHT22 / A</td> <td>1</td> <td>8€</td> </tr> <tr> <td>VEML6075 / A</td> <td>1</td> <td>10€</td> </tr> <tr> <td>Breadboard / A</td> <td>1</td> <td>5€</td> </tr> <tr> <td>PETG-Filament / A</td> <td>3</td> <td>45€</td> </tr> </tbody> </table>		resource/type of cost	unit	Costs (€)	Raspberry Pi 2w / A	1	30€	BME280 / A	1	5€	DHT22 / A	1	8€	VEML6075 / A	1	10€	Breadboard / A	1	5€	PETG-Filament / A	3	45€
resource/type of cost	unit	Costs (€)																					
Raspberry Pi 2w / A	1	30€																					
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VEML6075 / A	1	10€																					
Breadboard / A	1	5€																					
PETG-Filament / A	3	45€																					
<b>Project owner:</b> <ul style="list-style-type: none"> <li>HTL Wels</li> </ul>	<b>Project manager:</b> <ul style="list-style-type: none"> <li>Brückl Matthias</li> </ul>																						
<b>Project team members:</b> <ul style="list-style-type: none"> <li>Aistleitner Daniel</li> <li>Bergbauer Klaus</li> </ul>																							
<div> <div>&lt;HTL-Wels&gt;, (Project owner)</div> <div>&lt;Matthias Brückl&gt; (Project manager)</div> </div>																							

\* Possible categories of total Project budget:

Category A: up to 0,3 million Euro

Category B: up to 1 million Euro

Category C: up to 10 million Euro

Category D: more than 10 million Euro

## 1.2 Project Objectives (objectives, non-objectives)

Wetterstation 001 <div>PROJECT OBJECTIVES</div>		
Type of objective	Project objectives	Adjusted project objectives as of...
<b>objectives:</b> <ul style="list-style-type: none"> <li><b>Main objectives</b></li> <li><b>Additional objectives</b></li> </ul>	<ul style="list-style-type: none"> <li>Readout following sensors: <ul style="list-style-type: none"> <li>UV sensor</li> <li>Temperature sensor</li> <li>Air pressure sensor</li> <li>Humidity sensor</li> </ul> </li> <li>Energy-independent power supply (24 hours 7 days per week)</li> <li>Web based data analyse</li> <li>Minimalist Case</li> <li>Implement a pinwheel to measure wind speed</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
<b>Non-objectives</b>	<ul style="list-style-type: none"> <li>No complex data processing</li> <li>No guarantee of absolute accuracy of the measurement data.</li> <li>No use of cloud storage (e.g., Google Drive, AWS, Azure).</li> <li>No failover protection through redundant hardware components.</li> <li>No remote control</li> </ul>	<ul style="list-style-type: none"> <li>If there is enough time left before end of mai this objective could be transformed into an additional object.</li> </ul>

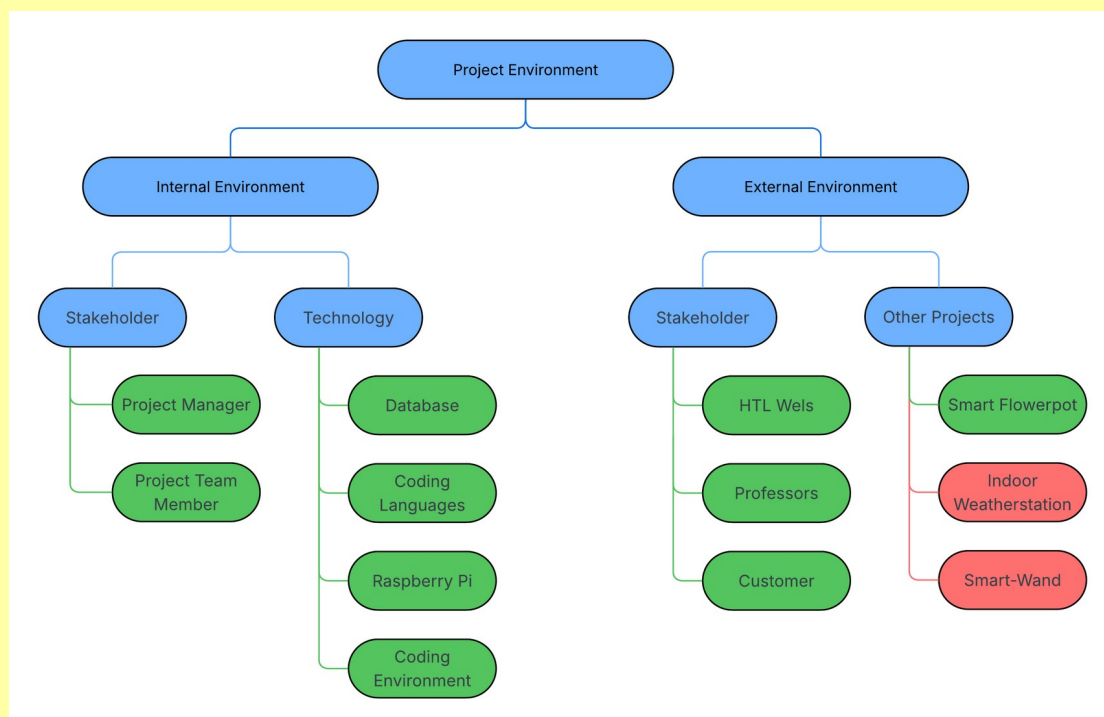
### 1.3 Description of Pre- and Post Project Phase

Wetterstation 001	DESCRIPTION OF PRE- AND POST- PROJECT PHASE
<b>1) Pre-project phase</b>	
<i>What triggered the project?</i>	
<ul style="list-style-type: none"> <li>• An assignment for ITP in school</li> <li>• The idea of the project was given to us by Brückl's mom</li> <li>• She wants to know the exact temperature in her garden</li> </ul>	
<i>Relevant documents for the project</i>	
<ul style="list-style-type: none"> <li>• Weatherstation_Goals.docx</li> <li>• Materiallist.docx</li> <li>• Wetterstation_Pflichtenheft.docx</li> <li>• Protokoll.docx</li> </ul>	
<i>Experience from similar projects</i>	
<ul style="list-style-type: none"> <li>• Groupwork SEW in second class (Aistleitner/Brückl/Bergbauer)</li> <li>• Built a react Website (Brückl)</li> <li>• </li> </ul>	
<b>2) Post-project phase</b>	
<ul style="list-style-type: none"> <li>• Project will be presented on the "Open House Day" at School</li> </ul>	

## 1.4 Project Environment Analysis

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### PROJECT ENVIRONMENT GRAPHIC



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### PROJECT ENVIRONMENT TABLE

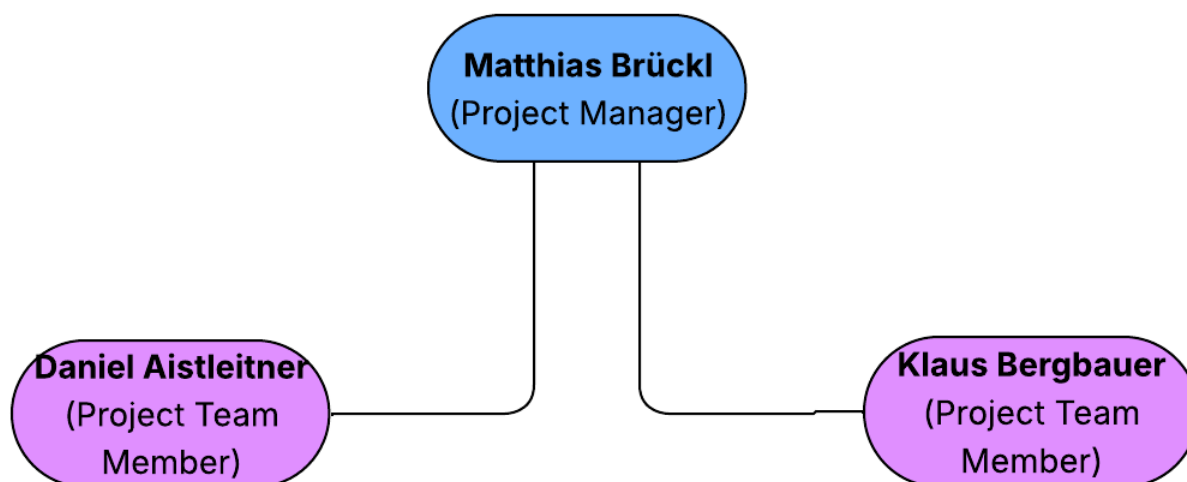
Environment	Relationship (potential/conflict)	Measures	Who / when  PSP Code
Stakeholder	potential	Can help us to optimize our project	HTL-Wels/ Professors
Other Projects	conflict	Are competition	Indoor Wetterstation
Other Projects	potential	can help each other	Smart-Flowerpot/ Smart-Wand
Technology	potential	help us to implement it as we envision it	Database/Coding languages/ Raspberry Pi

## 1.5 Relationship to Other Projects and the Organisations' Strategy

Wetterstation 001 RELATIONSHIP TO OTHER PROJECTS			
Programs/ Projects/	Relationship (potential/conflict)	Sanctions	Who / when  WBS Code
Indoor-Wetterstation	Conflict	Competition	Paul Gnadlinger; Nicolas Goiginger
Smarter Blumentopf	Potential	Support with Know-how	Paul Auer
Smart-Wand	Potential	Support with Know-how	Thomas Toferer

Wetterstation 001 CONNECTION TO THE ORGANISATION'S STRATEGY	
Strategy	Description of connection/relationship
-	-

## 1.6 Project Organisation Chart

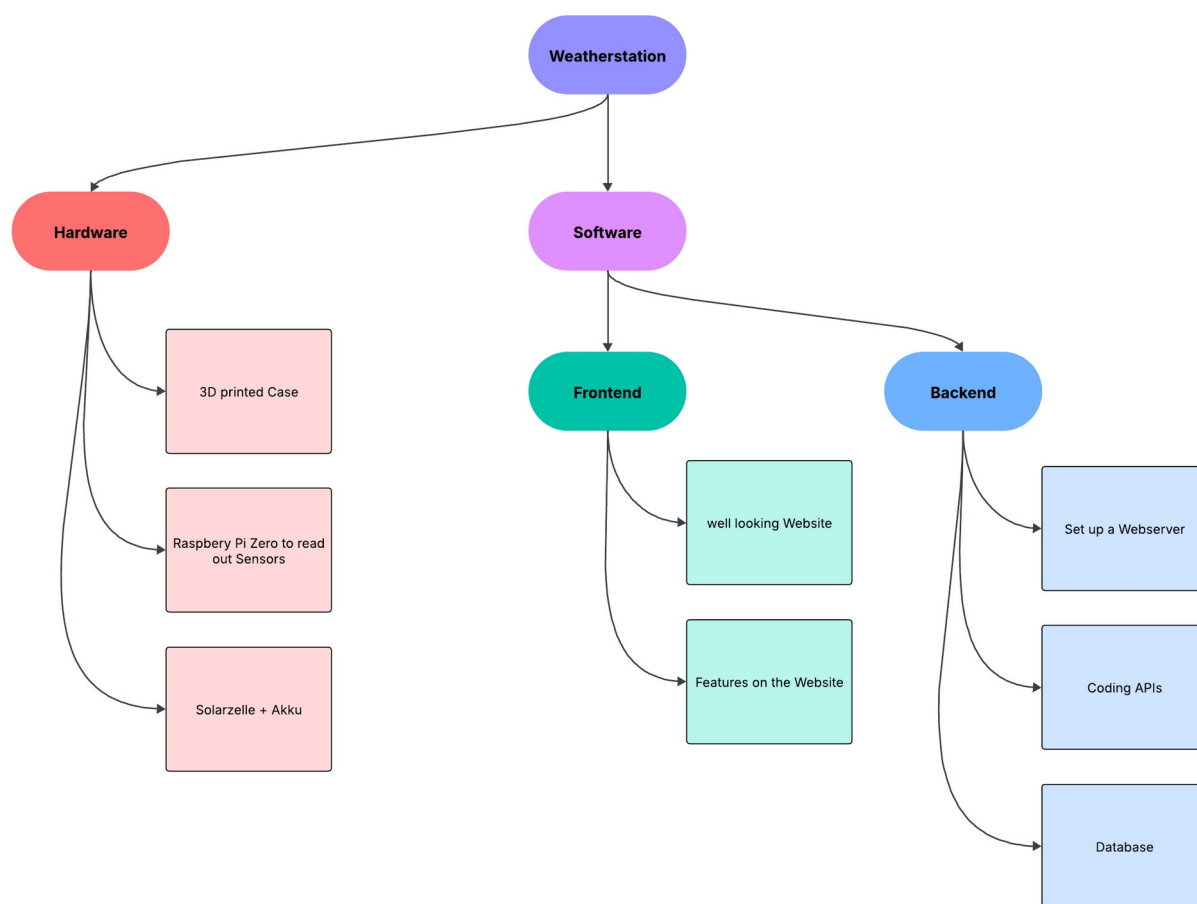


Wetterstation 001 PROJECT- ORGANISATION		
Role in Project	Field of duties/Skills	Name
Project owner	Financial providence	HTL Wels
Project manager	Backend development	Matthias Brückl
Project team members	1. Frontend development 2. Hardware and 3d Modelling	1. Daniel Aistleitner 2. Klaus Bergbauer
Project members		

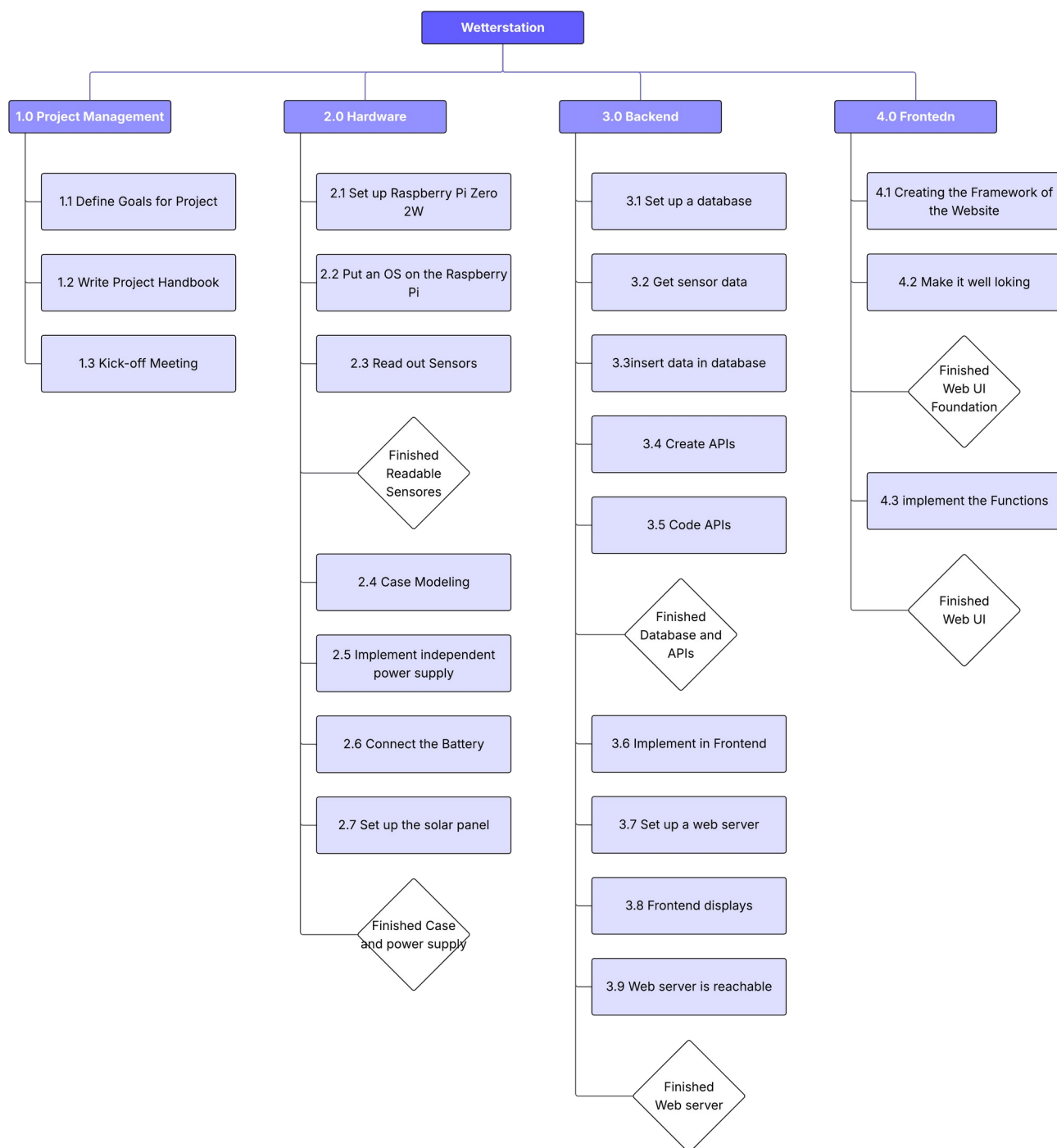
## 1.7 Plan of Objects of Consideration of the Project

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### PLAN OF OBJECTS OF CONSIDERATION



## 1.8 Work Breakdown Structure (WBS)



## 1.9 Project Work-Package Specification

Wetterstation 001 PROJECT WORK-PACKAGE SPECIFICATION	
1.1 Setup a Folder Structure	<b>WP Content</b> ( <i>What shall be done?</i> ) <ul style="list-style-type: none"> <li>Think about a clear folder structure</li> </ul>
	<b>WP Result</b> ( <i>What is achieved after WP was finished?</i> ) <ul style="list-style-type: none"> <li>Have a clear folder structure</li> </ul>
	<b>Progress Measurement</b> ( <i>How is progress measured?</i> ) <ul style="list-style-type: none"> <li>Every File has his right place</li> </ul>
1.2 Workout Project Requirements	<b>WP Content</b> ( <i>What shall be done?</i> ) <ul style="list-style-type: none"> <li>Think about the Project Requirements</li> </ul>
	<b>WP Result</b> ( <i>What is achieved after WP was finished?</i> ) <ul style="list-style-type: none"> <li>Have a clear vision of the Project</li> </ul>
	<b>Progress Measurement</b> ( <i>How is progress measured?</i> ) <ul style="list-style-type: none"> <li>The Requirements will increase</li> </ul>
1.3 Workout Project Handbook section 1-3	<b>WP Content</b> ( <i>What shall be done?</i> ) <ul style="list-style-type: none"> <li>Filling the Project-Handbook</li> </ul>
	<b>WP Result</b> ( <i>What is achieved after WP was finished?</i> ) <ul style="list-style-type: none"> <li>The sections 1-3 have the right entries</li> </ul>
	<b>Progress Measurement</b> ( <i>How is progress measured?</i> ) <ul style="list-style-type: none"> <li>The Project-Handbook are filling</li> </ul>
1.4 Workout Project Handbook section 4-5	<b>WP Content</b> ( <i>What shall be done?</i> ) <ul style="list-style-type: none"> <li>Filling the Project-Handbook section 4-5</li> </ul>
	<b>WP Result</b> ( <i>What is achieved after WP was finished?</i> ) <ul style="list-style-type: none"> <li>The sections 4-5 have the right entries</li> </ul>
	<b>Progress Measurement</b> ( <i>How is progress measured?</i> ) <ul style="list-style-type: none"> <li>The Project-Handbook are filling</li> </ul>
1.5 Workout Project Specification Section	<b>WP Content</b> ( <i>What shall be done?</i> ) <ul style="list-style-type: none"> <li>Filling the Project Specification</li> </ul>
	<b>WP Result</b> ( <i>What is achieved after WP was finished?</i> ) <ul style="list-style-type: none"> <li>Have a clear Project Specification, which has the right entries</li> </ul>
	<b>Progress Measurement</b> ( <i>How is progress measured?</i> ) <ul style="list-style-type: none"> <li>The Project Specification are filling</li> </ul>

2.1 Raspberry activation	<b>WP Content</b> <i>(What shall be done?)</i> <ul style="list-style-type: none"> <li>Setting up the raspberry</li> </ul>
	<b>WP Result</b> <i>(What is achieved after WP was finished?)</i> <ul style="list-style-type: none"> <li>Make the raspberry useable</li> </ul>
	<b>Progress Measurement</b> <i>(How is progress measured?)</i> <ul style="list-style-type: none"> <li>If raspberry is ready</li> </ul>
2.2 Sensor implementation	<b>WP Content</b> <i>(What shall be done?)</i> <ul style="list-style-type: none"> <li>Sensor implementing</li> </ul>
	<b>WP Result</b> <i>(What is achieved after WP was finished?)</i> <ul style="list-style-type: none"> <li>Make the raspberry useable for the sensors</li> </ul>
	<b>Progress Measurement</b> <i>(How is progress measured?)</i> <ul style="list-style-type: none"> <li>If raspberry is ready</li> </ul>
2.3 Write Sensor Scripts	<b>WP Content</b> <i>(What shall be done?)</i> <ul style="list-style-type: none"> <li>Make the data from the sensors usable</li> </ul>
	<b>WP Result</b> <i>(What is achieved after WP was finished?)</i> <ul style="list-style-type: none"> <li>The data is displayed in the terminal</li> </ul>
	<b>Progress Measurement</b> <i>(How is progress measured?)</i> <ul style="list-style-type: none"> <li>Scripts are finished for each sensors</li> </ul>
2.4 Case modeling	<b>WP Content</b> <i>(What shall be done?)</i> <ul style="list-style-type: none"> <li>Modeling the case of the weather station</li> </ul>
	<b>WP Result</b> <i>(What is achieved after WP was finished?)</i> <ul style="list-style-type: none"> <li>Have a file to print</li> </ul>
	<b>Progress Measurement</b> <i>(How is progress measured?)</i> <ul style="list-style-type: none"> <li>Having a promising model</li> </ul>
2.5 Print Case	<b>WP Content</b> <i>(What shall be done?)</i> <ul style="list-style-type: none"> <li>Print the Case</li> </ul>
	<b>WP Result</b> <i>(What is achieved after WP was finished?)</i> <ul style="list-style-type: none"> <li>Having a ready to use case for the weather station</li> <li>Combination with raspberry and other components</li> </ul>
	<b>Progress Measurement</b> <i>(How is progress measured?)</i> <ul style="list-style-type: none"> <li>Having a successful print</li> <li>Making the other components fit</li> </ul>
2.6 Think about an Energy independent power supply	<b>WP Content</b> <i>(What shall be done?)</i> <ul style="list-style-type: none"> <li>Think about an energy independent power supply</li> </ul>
	<b>WP Result</b> <i>(What is achieved after WP was finished?)</i> <ul style="list-style-type: none"> <li>Have an energy independent concept</li> </ul>
	<b>Progress Measurement</b> <i>(How is progress measured?)</i> <ul style="list-style-type: none"> <li>The concept can be implemented</li> </ul>
2.7 Implement the	<b>WP Content</b> <i>(What shall be done?)</i>

<b>Energy independent power supply</b>	<ul style="list-style-type: none"> <li>Installing the independent power supply</li> </ul>
	<b>WP Result</b> <i>(What is achieved after WP was finished?)</i> <ul style="list-style-type: none"> <li>The Weatherstation is powered by solar energy.</li> </ul>
	<b>Progress Measurement</b> <i>(How is progress measured?)</i> <ul style="list-style-type: none"> <li>The Weatherstation is running 24/7</li> </ul>
<b>3.1. Basic Framework</b>	<b>WP Content</b> <i>(What shall be done?)</i> <ul style="list-style-type: none"> <li>Programming the Basic Framework of the Frontend</li> </ul>
	<b>WP Result</b> <i>(What is achieved after WP was finished?)</i> <ul style="list-style-type: none"> <li>Creating a functional running program</li> </ul>
	<b>Progress Measurement</b> <i>(How is progress measured?)</i> <ul style="list-style-type: none"> <li>If there are no errors</li> <li>Program is running</li> </ul>
<b>3.2. Website with not yet functional features</b>	<b>WP Content</b> <i>(What shall be done?)</i> <ul style="list-style-type: none"> <li>Programming the website with the necessary features</li> </ul>
	<b>WP Result</b> <i>(What is achieved after WP was finished?)</i> <ul style="list-style-type: none"> <li>Having a not yet functional website</li> </ul>
	<b>Progress Measurement</b> <i>(How is progress measured?)</i> <ul style="list-style-type: none"> <li>Control and looking at the website</li> </ul>
<b>3.3. Functionalities</b>	<b>WP Content</b> <i>(What shall be done?)</i> <ul style="list-style-type: none"> <li>Programming the functionalities</li> </ul>
	<b>WP Result</b> <i>(What is achieved after WP was finished?)</i> <ul style="list-style-type: none"> <li>Sensor-data and printing it out</li> </ul>
	<b>Progress Measurement</b> <i>(How is progress measured?)</i> <ul style="list-style-type: none"> <li>If you can see the data on the website</li> </ul>
<b>3.4. Design</b>	<b>WP Content</b> <i>(What shall be done?)</i> <ul style="list-style-type: none"> <li>Design of the website</li> </ul>
	<b>Promotion cum laude zum Dr. med. dent. an der Semmelweis Universität Budapest</b>
	<b>WP Result</b> <i>(What is achieved after WP was finished?)</i> <ul style="list-style-type: none"> <li>Having a well looking website</li> </ul>
	<b>Progress Measurement</b> <i>(How is progress measured?)</i> <ul style="list-style-type: none"> <li>Adding simple elements</li> </ul>
<b>4.1. Database</b>	<b>WP Content</b> <i>(What shall be done?)</i>

	<ul style="list-style-type: none"> <li>• Setup a small database to save</li> </ul>
	<b>WP Result</b> <i>(What is achieved after WP was finished?)</i> <ul style="list-style-type: none"> <li>• Having a well modeld Database</li> </ul>
	<b>Progress Measurement</b> <i>(How is progress measured?)</i> <ul style="list-style-type: none"> <li>• Values can be stored effectively</li> </ul>
<b>4.2. APIs</b>	<b>WP Content</b> <i>(What shall be done?)</i> <ul style="list-style-type: none"> <li>• Coding APIs</li> </ul>
	<b>WP Result</b> <i>(What is achieved after WP was finished?)</i> <ul style="list-style-type: none"> <li>• Frontend can reach Data</li> </ul>
	<b>Progress Measurement</b> <i>(How is progress measured?)</i> <ul style="list-style-type: none"> <li>• Values are displayed on the Frontend</li> </ul>
<b>4.3. Web Server</b>	<b>WP Content</b> <i>(What shall be done?)</i> <ul style="list-style-type: none"> <li>• Setting up a web server</li> </ul>
	<b>WP Result</b> <i>(What is achieved after WP was finished?)</i> <ul style="list-style-type: none"> <li>• A web server is running</li> </ul>
	<b>Progress Measurement</b> <i>(How is progress measured?)</i> <ul style="list-style-type: none"> <li>• The website that displays the data can be accessed</li> </ul>

## 1.10 Project Responsibility Matrix

Wetterstation 001		PROJECT- RESPONSIBILITY- MATRIX												
WBS- Code	WP-Title	Roles & Environment												
		External project owner	Project owner	Project manager	Project assistant	Project team member 1	Project team member 2	Project team member 3	Project team member 4	Project team member 5	Project member 1	Project member 2	Project member 3	Project coach
<b>1.0</b>	<b>Project Management</b>		<b>I</b>	<b>R</b>		<b>C</b>	<b>C</b>							
1.0.1	Define goals for Project		I	R		C	C							
1.0.2	Write Project-Handbook		I	R		C	C							
1.0.3	Kick-off meeting		I	R		C	C							
<b>1.1</b>	<b>Hardware</b>		<b>I</b>	<b>C</b>		<b>I</b>	<b>R</b>							
1.1.1	Set up the Raspberry Pi Zero 2W		I	I		I	R							
1.1.1.1	Put an OS on the Raspberry Pi Zero		I	I		I	R							
1.1.1.2	Use correct resistors and sensors		I	I		I	R							
1.1.1.3	Read out sensors		I	C		I	R							
1.1.2	Case modeling		I	I		I	R							
1.1.3	Implement independent power supply		I	I		I	R							
1.1.3.1	Connect the battery		I	I		I	R							
1.1.3.2	Setting up the Solar panel		I	I		I	R							
<b>1.2</b>	<b>Backend</b>		<b>I</b>	<b>R</b>		<b>C</b>	<b>C</b>							
1.2.1	Set up a database		I	R		I	C							
1.2.1.1	Get Sensor Data		I	R		I	C							
1.2.1.2	Insert in data in database		I	R		I	C							
1.2.2	Create APIs		I	R		C	I							
1.2.2.1	Code APIs		I	R		I	I							
1.2.2.2	Implement in Frontend		I	C		R	I							
1.2.3	Set up a web server		I	R		C	I							
1.2.3.1	Frontend displays		I	R		C	I							
1.2.3.2	Web server is reachable		I	R		I	I							
<b>1.3</b>	<b>Frontend</b>		<b>I</b>	<b>I</b>		<b>R</b>	<b>I</b>							
1.3.1	Creating the Framework of the website		I	I		R	I							

1.3.2	Make it well looking		I	I		R	I							
1.3.3	Implement the functions		I	C		R	I							

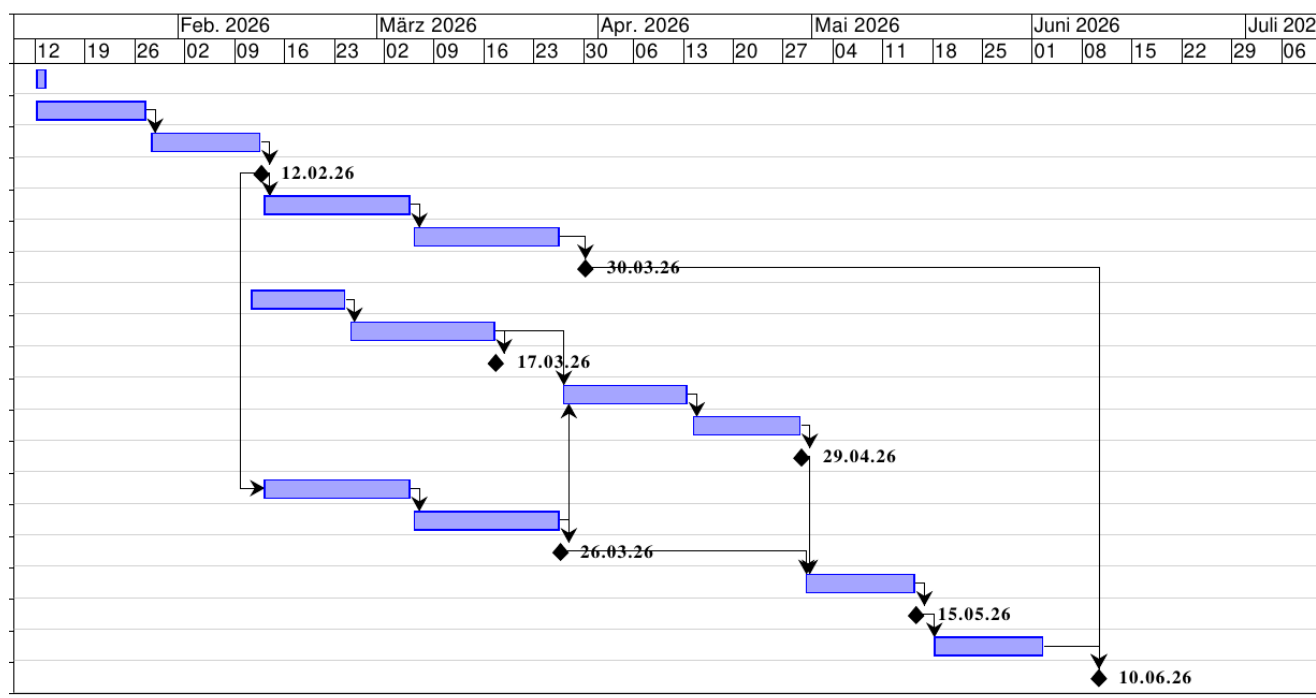
Functions  
R .....Responsible  
C .....Contribution  
I .....has to be informed

## 1.11 Milestoneplan

Wetterstation 001 MILESTONEPLAN				
WBS-Code	Milestone	Plan date	Revised date	Actual date
4	Finished readable sensors	12.02.2026		
7	Finished case and power supply	30.03.2026		
10	Finished Web UI Foundation	17.03.2026		
16	Finished Database and APIs	26.03.2026		
13	Finished Fronted	29.04.2026		
18	Finished Web Server	15.05.2026		
20	Finished Project	10.06.2026		

\*In order of plan dates.

## 1.12 Project Bar Chart



## 1.13 Resource Plan

Wetterstation 001						
Resource Plan						
WBS-Code	Phase/Work-package	Type of resource	Planned quantity (days)	Revised quantity (days)	Actual quantity (days)	Deviation (days)
2	Raspberry activation	Raspberry Pi Zero 2W, Laptop, Raspberry Pi Imager	12	12	12	0
3	Sensor implementation	Raspberry Pi Zero 2W, DHT22, BME280	12			
5	Work out energy independent power supply	Raspberry Pi Zero 2W, Battery, solar panel	15			
6	Case modeling and printing	3D-Printer, ABS-Filament, Laptop, Oneshape	15			
8	Framework fro Web UI	Laptop, Virtual Studio Code	10			
9	Web UI with not yet functional features	Laptop, Virtual Studio Code	15			
11	Functionalities in Web UI	Laptop, Virtual Studio Code	12			
12	Web UI Design	Laptop, Virtual Studio Code	12			
14	Setup a Database	Laptop, Raspberry Pi Zero 2W, DataGrip	15			
15	Creating APIs	Laptop, Raspberry Pi Zero 2W, Virtual Studio Code	15			
17	Create Web Server	Laptop, Raspberry Pi Zero 2W, Virtual Studio Code	12			
19	Setup mDNS	Laptop, Raspberry Pi Zero 2W, Virtual Studio Code	12			

## 1.14 Project Cost Plan

<div> <div>Wetterstation 001</div> <div>PROJECT COST PLAN</div> </div>					
WBS-Code, WP-Title	Type of Cost	Planned cost	Revised cost	Actual cost	Deviation
1. Hardware	• Personnel	0€			
	• Material	98€			
	• External services	0€			
	• Other	0€			
	Total	98€			
2. Software	• Personnel	0€			
	• Material	0€			
	• External services	0€			
	• Other	0€			
	Total	0€			
3. Frontend	• Personnel	0€			
	• Material	0€			
	• External services	0€			
	• Other	0€			
	Total	0€			
Project cost		98€			

## 1.15 Project Communication

PROJECT-COMMUNICATION				
<div>Wetterstation 001</div>				
Title	Objectives, Content	Participants	Schedule	Location
Project owner meeting	<ul style="list-style-type: none"> <li>project status</li> <li>decisions</li> <li>acceptance of progress report</li> </ul>	Project owner, Project manager	Not yet scheduled	Teacher Table
Project controlling meeting	<ul style="list-style-type: none"> <li>project status</li> <li>controlling of tasks, schedule, resources, costs</li> <li>controlling of project environments</li> <li>social controlling</li> <li>prepare proposal for decision</li> </ul>	Project manager, Project team, Project coach	Every Monday at 11 o'clock	Last Row, classroom T233
Subteam meeting	<ul style="list-style-type: none"> <li>Coordination of subteams</li> <li>Discussion of problems</li> </ul>	Subteam	Every Monday at 11 o'clock	Last Row, classroom T233
	<ul style="list-style-type: none"> <li></li> </ul>			

## 1.16 Project „Rules“

### Communication:

- **Weekly Meetings:** The participation of the Project Team Member and the Project Manager in the Weekly Meetings is very important. The meeting is scheduled every Monday at 11 o'clock.
- **File sharing:** All files belonging to the project must be published in the GitHub repository. No other ways to share files are allowed.
- **Communication channels:** All important information will be published in the team group.

### General Collaboration:

- **Time Management:** Each team member is responsible for their own work packages. These must be completed by the deadline. If more time is needed, this must be requested promptly.
- **Support:**
  - If help is needed with a work package, it must be requested promptly.
  - If someone needs help and you have the time and are able to help, you are obligated to do so.

### Documentation:

- **Version Control:** The Project Handbook must be updated regularly. Significant changes require a new version number and an entry in the document history.

### Technical Standard:

- **Hardware Care:** Care must be taken with the hardware components, and they must not be damaged or broken in any way. If this happens, the affected part must be replaced.



## 1.18 Project Documentation

Area	Description
File	In the GitHub Repository: Directory named "Documentation"
Access Authorization	Everyone from the Project Team has access to the documentation
Naming convention	DDMMYYYY_version_name.docx
Rules	

## 2 Project Start

### 2.1 Minutes– Project Start

#### 2.1.1 Project Start Workshop

#### 2.1.2 Follow-up Workshop

#### 2.1.3 Project Owner Meeting

## 3 Project Co-ordination

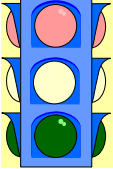

### 3.1 Approval of Work-packages

Wetterstation 001 <div> APPROVAL OF WORK-PACKAGES </div>					
WBS-Code	Work-package	WP-Owner	Date	Approval by	Signature
2	Raspberry activation	Berbauer K.			
3	Sensor implementation	Berbauer K.			
5	Work out energy independent power supply	Berbauer K.			
6	Case Modeling	Berbauer K.			
8	Framework for Web UI	Aistleitner D.			
9	Web UI with not yet functional features	Aistleitner D.			
11	Functionalities in Web UI	Aistleitner D.			
12	Design	Aistleitner D.			
14	Setup a Database	Brückl M.			
15	Creating APIs	Brückl M.			
17	Create Web Server	Brückl M.			
19	setup mDNS	Brückl M.			

### 3.2 Minutes – Project Co-ordination

## 4 Project Controlling

### 4.1 Project Status Report

Wetterstation 001		PROJECT STATUS REPORT as of .....	
 <ul style="list-style-type: none"> <li>Project crisis</li> <li>Project in difficulties</li> <li>Project according to plan </li> </ul>		<b>1) Overall Status:</b> <ul style="list-style-type: none"> <li>The project is progressing well. Raspberry Pi Zero 2W has been successfully set up with SSH and Wi-Fi enabled. DHT11 sensor testing is underway, and the basic React website structure is complete.</li> </ul>	
<b>2) Status Project objectives</b> <ul style="list-style-type: none"> <li>Set up Raspberry Pi Zero 2W with OS Lite</li> <li>Enable remote access via SSH</li> <li>Test DHT11 temperature/humidity sensor</li> <li>Develop React-based web interface</li> </ul>		<b>Activities:</b> <ul style="list-style-type: none"> <li>Raspberry Pi successfully configured</li> <li>DHT11 sensor integrated and tested (command line output working)</li> <li>Basic website structure implemented in React</li> </ul>	
<b>3) Status Project progress</b> <ul style="list-style-type: none"> <li>Hardware setup: 80% complete (waiting for hardware shipment)</li> <li>Sensor integration: 55% complete (testing phase)</li> <li>Website development: 20% complete (structure done, output pending)</li> </ul>		<b>Activities:</b> <ul style="list-style-type: none"> <li>Raspberry OS Lite installed on 32GB Micro SD card</li> <li>SSH and Wi-Fi connectivity established</li> <li>DHT11 sensor displaying data in terminal</li> <li>React frontend Framework implemented</li> </ul>	
<b>4) Status Schedule</b> <ul style="list-style-type: none"> <li>On track - all milestones met by 03.02.2026</li> <li>No delays reported</li> </ul>		<b>Activities:</b> <ul style="list-style-type: none"> <li>Phase 1 (Hardware Setup) completed on time (with lend Raspberry)</li> <li>Phase 2 (Sensor Testing) in progress as planned</li> </ul>	
<b>5) Status Resources/costs</b> <ul style="list-style-type: none"> <li>Raspberry Pi Zero 2W (lended)</li> <li>32GB Micro SD card</li> <li>DHT11 sensor (for testing)</li> <li>DHT22 sensor</li> <li>BMP280</li> </ul>		<b>Activities:</b> <ul style="list-style-type: none"> <li>Nearly all required hardware procured</li> <li>Budget within limits</li> <li>No additional resource requirements identified</li> </ul>	
<b>6) Status Context</b> <ul style="list-style-type: none"> <li>Raspberry Pi Imager used for OS installation</li> <li>PowerShell used for remote SSH connection</li> </ul>		<b>Activities:</b> <ul style="list-style-type: none"> <li>Documentation of setup procedure completed</li> <li>Network connectivity stable</li> <li>No external blockers or dependencies</li> </ul>	

<p><b>7) Status Organisation/culture</b></p> <ul style="list-style-type: none"> <li>• Author: Klaus Bergbauer</li> <li>• Collaboration ongoing</li> </ul>	<p><b>Activities:</b></p> <ul style="list-style-type: none"> <li>• Knowledge sharing via progress documentation</li> <li>• Testing and development workflow established</li> <li>• Communication channels functional (SSH, Wi-Fi)</li> </ul>
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## **4.2 Additional Project Status Reports**

## **4.3 Minutes – Project controlling**

### **4.3.1 Project Controlling Meetings**

### **4.3.2 Project Owner Meetings**

# 5 Project Close Down

## 5.1 Project Close Down Report

Wetterstation 001			PROJECT CLOSE DOWN REPORT		
1) Overall impression			2) Reflection: Fulfilment of objectives		
3) Reflection: Deliverables / Schedule					
4) Reflection: Resources / Costs					
5) Reflection: Internal Organisation / Environmental Relationships					
6) Performance appraisal (Project owner, Project manager, Project member)			7) Lessons learned (Summary of Experiences and suggestions for improvement)		
8) Post-Project Phase Planning, Additional Tasks					
To-Do			Owner	Schedule	
9) Project Close Down					
..... <Name> (Project owner)			..... <Name> (Project manager)		

## **5.2 Minutes – Project Close Down**

### **5.2.1 Project Close Down Workshop**