

Project Name	Robot Visual Perception
Online team meeting	https://fau.zoom-x.de/j/62836031488
Production system (if any)	Service Provided (later in the Project)
Test system (if any)	Local Webkit
GitHub repository	https://github.com/amosproj/amos2025ws04-robot-visual-perception
GitHub feature board	https://github.com/orgs/amosproj/projects/92
GitHub imp-squared backlog	https://github.com/orgs/amosproj/projects/95
Team T-shirt (white)	https://www.shirtinator.de/s/E_elf-EIT4iidRVnqM8J5w
Team T-shirt (black)	https://www.shirtinator.de/s/R0CANDdWTRCOvCohq_encA
Additional materials	https://discord.gg/VDqD2Zfb
Team mailing list	oss-amos-proj4@lists.fau.de
	https://happy-amos.appspot.com/
	Please use our mailing list for written communication. Only CC teachers (university) and coaches on specific topics, as the mailing lists are very long.

Last Name	First Name	GitHub User Name	Email Address
Hilgers	Felix	fhilgers	felix.hilgers@fau.de
Khan	Muhamad	mukahn	md.kahn@tu-berlin.de
Samdani	Sarib	saribx	saribstudent@gmail.com
Chinbat	Anuun	anuunchin	anuun.ch @gmail.com
Goldschmidt	Georgina	bu31punu	dzsini.lost@gmail.com
Zinn	Benedikt	BenediktZinn	benedikt.wh.zinn@gmail.com
Badura	Emil	Tenebrae311	badura@tu-berlin.de
Assenbaum	Paul	Paul2607	paul.assenbaum@fau.de
Mantsch	Christoph	Christoph-Mantsch	christoph.cm.mantsch@fau.de
Asadi	Zohreh	zohrehasadi00	zohrehasadi730@gmail.com

#	Meeting Day	Product Owner		Software Developer	Release Manager	Scrum Master	Comment
		Review	Planning				
1	2025-10-22	Felix Hilgers	Benedikt Zinn	Everyone else	Paul Assenbaum	Georgina Goldschmidt	(Tuesday 21. Discord for Release process example)
2	2025-10-29	Benedikt Zinn	Felix Hilgers	Everyone else	Anuun Chinbat	Georgina Goldschmidt	
3	2025-11-05	Felix Hilgers	Benedikt Zinn	Everyone else	Sarib Samdani	Georgina Goldschmidt	
4	2025-11-12	Benedikt Zinn	Felix Hilgers	Everyone else	Sarib Samdani	Georgina Goldschmidt	
5	2025-11-19	Felix Hilgers	Benedikt Zinn	Everyone else	Anuun Chinbat	Georgina Goldschmidt	
6	2025-11-26	Benedikt Zinn	Felix Hilgers	Everyone else	Emil Badura	Georgina Goldschmidt	
7	2025-12-03	Felix Hilgers	Benedikt Zinn	Everyone else	Emil Badura	Georgina Goldschmidt	Mid-term due
8	2025-12-10	Benedikt Zinn	Felix Hilgers	Everyone else	Paul Assenbaum	Georgina Goldschmidt	
9	2025-12-17	Felix Hilgers	Benedikt Zinn	Everyone else	Christoph Mantsch	Georgina Goldschmidt	
10	2023-01-11	Benedikt Zinn	Felix Hilgers	Everyone else	Christoph Mantsch	Georgina Goldschmidt	
11	2023-01-18	Felix Hilgers	Benedikt Zinn	Everyone else	Zohreh Asadi	Georgina Goldschmidt	
12	2023-01-25	Benedikt Zinn	Felix Hilgers	Everyone else	Zohreh Asadi	Georgina Goldschmidt	
13	2023-02-01	Felix Hilgers	Benedikt Zinn	Everyone else		Georgina Goldschmidt	
14	2023-02-08	Benedikt Zinn	Felix Hilgers	Everyone else		Georgina Goldschmidt	Demo day!
15	2023-02-15	Felix Hilgers	Benedikt Zinn	Everyone else		Georgina Goldschmidt	Retrospective
Product owners, software developers, and Scrum Master are set and ideally don't change over time; the critical part is the Release Manager role you need to define here							

Goals	Development of a visual perception system for robots with an accuracy of $\geq 90\%$
Meeting norms	<p>Zoom-Meetings in the meeting room of the university. Joining the meeting is mandatory, with exceptions (like sickness, etc.). As an exception, showing up to 10 minutes late is fine if the team is informed via discord. Happiness Index: has to be completed at the end of the meeting (amos happy). Stand-up-mails: containing -> things done, problems encountered, things up next. -> For SDs: min 2x per week -> For POs: min 1x per week</p>
Working norms	<p>Issues on Github in the "Feature board" project of the repository. Definition of Done: If specified in the issue that the feature has to be tested, tests have to be written for that feature, documented (in code or later in the wiki) Git-branches: The latest commit on the main-branch has to be tagged. Only 2 "in progress" tickets per person at one time.</p>
Coordination norms	<p>Developers can create issues but not put them onto the "Feature board". If blocked by a different task, discuss it as soon as possible. Communication should happen via Discord & mail. Criticism should be constructive. Language should be respectful at all times, both verbal and written communication.</p>
Communication norms	<p>Developers can create issues but not put them onto the "Feature board". If blocked by a different task, discuss it as soon as possible. Communication should happen via Discord & mail. Criticism should be constructive. Language should be respectful at all times, both verbal and written communication.</p>
Consideration norms	
Cont. improvement norms	
Rewards	Online coffee or lunch meet at some point.
Sanctions	Document absence. Repeated absence is addressed with the missing person directly but will later be escalated to professors.
Signatures	
Scrum Master	Georgina Goldschmidt
Product owner	Felix Hilgers

Product owner	Benedikt Zinn
Software developer	Sarib Samdani
Software developer	Emil Badura
Software developer	Anuun Chinbat
Software developer	Paul Assenbaum
Software developer	Christoph Mantsch
Software developer	Zohreh Asadi

Product Vision	Project Mission
The reason of existence of the envisioned product (beyond this project).	The mission of this particular project (in the context of the product vision).

Term	Definition

Sprint #	Sprint goal
1	Meeting with industry partner and getting things started (and the T-shirt of course)
2	Start work on individual components and research unclear topics
3	Combining components into a first working prototype
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Sprint #	Story Points Realized
1	
2	
3	
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15	
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Sprint	Goal	Feature Name	Est. size	Est. remaining	Real size	Real remaining
Release						
Total			0	0		
Sprints						
1			0	0	0	0
2			0	0	0	0
3			0	0	0	0
...				0		0
Features						
1						
2						
3						
		PLEASE CREATE THE BURNDOWN CHART ON A NEW TAB USING THE DATA FROM THIS TAB				

Sprint	Goal	Feature Name	Est. size	Est. remaining	Real size	Real remaining
Release						
Total			0	0		
Sprints						
1			0	0	0	0
2			0	0	0	0
3			0	0	0	0
...				0		0
Features						
1						
2						
3						
		PLEASE CREATE THE BURNDOWN CHART ON A NEW TAB USING THE DATA FROM THIS TAB				

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Type	Link / reference

#	Context	Name	Version	License	Comment
	Frontend (React UI)	npm:react	18.3.1	MIT	
	Frontend (React UI)	npm:react-dom	18.3.1	MIT	
	Frontend (React UI)	npm:typescript	5.4.5	Apache-2.0	
	Frontend (React UI)	npm:vite	5.2.0	MIT	
	Frontend (React UI)	npm:websocket	1.0.35	MIT	
	Frontend (React UI)	npm:webrtc-adapter	9.1.2	BSD-3-Clause	
	Frontend (React UI)	npm:axios	1.7.2	MIT	
	Frontend (React UI)	npm:zustand	4.5.3	MIT	
	Frontend (React UI)	npm:three	0.169.0	MIT	for 3D-visualization, optional
	Backend (FastAPI API)	pypi:uvicorn	0.30.1	BSD-3-Clause	
	Backend (FastAPI API)	pypi:websockets	13.1	BSD-3-Clause	
	Backend (FastAPI API)	pypi:grpcio	1.66.1	Apache-2.0	
	Backend (FastAPI API)	pypi:httpx	0.27.0	BSD-3-Clause	
	Backend (FastAPI API)	pypi:fastapi	0.115.2	MIT	
	WebRTC Signaling	go:pion/webrtc	3.2.35	MIT	
	WebRTC Signaling	go:gorilla/websocket	1.5.2	BSD-2-Clause	
	Image Analysis (Python)	pypi:torch	2.3.1	BSD-3-Clause	
	Image Analysis (Python)	pypi:torchvision	0.18.1	BSD-3-Clause	
	Image Analysis (Python)	pypi:opencv-python	4.10.0.84	Apache-2.0	
	Image Analysis (Python)	pypi:midas	3.1	MIT	for depth recognition
	Image Analysis (Python)	pypi:ultralytics	8.2.14	APGL-3.0	for computer vision
	Image Analysis (Python)	pypi:numpy	2.1.1	BSD-3-Clause	
	Infrastructure/Deployment	docker:python	3.11-slim	PSF	
	Infrastructure/Deployment	docker:golang	20-alpine	MIT	
	Infrastructure/Deployment	docker:nvidia/cuda	12.4.1-base	NVIDIA Software License	
	Infrastructure/Deployment	helm:kubernetes	1.13.0	Apache-2.0	
	Infrastructure/Deployment	prometheus/prometheus	2.54.0	Apache-2.0	
	Infrastructure/Deployment	grafana/grafana	11.1.0	AGPL-3.0	

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Last Name	First Name	Value					
Hilgers	Felix			3.00	OK		
Samdani	Sarib	3					
Chinbat	Anuun	3					
Goldschmidt	Georgina			0	No size		
Zinn	Benedikt			1	Trivial size		
Badura	Emil	3		2	Small size		
Assenbaum	Paul	3		3	Medium size		
Mantsch	Christoph	3		5	Large size		
Asadi	Zohreh	3		8	Very large size		
				13	Too large (size)		
How to play planning poker							
1. Everyone type their number into their value field, don't hit return yet							
2. Someone, perhaps a product owner, count down 3.. 2.. 1..							
3. Then, everyone hit return to submit their value							
						no cap yet	