ocumer e and ir	nt pre	sents a rou	gh proposal for nt, according to	the directory tree in the its application in an a	ne Autoware.Al repo autonomous vehicle.	sitory. It organ	nizes the packages in the	repository base	d on its capability,									
			CPFL/Autoware/v															
		Capability	Module	Component	Component Directory	Package Type	Package	Package Directory	Node									
re ros																		
	src	Data																
			README.md, d	esign.md														
			maps	README.md, design.r	nd													
				points_map	README.md, design	.md, default	.launch, interface.yam	1										
					packages													
						core	points_map_loader											
						lib	points_map_wizard											
				vector_map	PENDME and dominate	md dofault	.launch, interface.yam	1										
					packages		. raunch, interrace.yan.											
						core	vector_map_loader											
						lib												
		Sensing					vector_map_wizard											
			README.md, d drivers	esign.md														
				README.md, design.r	nd													
						.md, default	.launch, interface.yam	1										
					packages	core												
							lidar_launcher	(container for laun	ch files, external dependencies	3)	onwon							
								launch		, package.xmi, bio	CENSE, FOSG	oc.yanı						
									velodyne heisai									
									robosense innoviz									
									ouster									
						lib			hokuyo									
					submodules	core												
									dependency: http://wiki.ros.org.									
									we receive the sensor ETA A /CPFL/robosense, trying to pu		ithub.com/Rob	oSense-LiDAR	/ros_rslidar/pull/	6)				
							innoviz	(WIP, no ETA)										
							hokuyo	(planned to be take	/CPFL/ouster PR to upstream en out as dependency, push u	odates to upstream repo	os: http://wiki.ro	s.org/hokuyo_	node ; http://wiki	.ros.org/hokuyo3d) No Melodic sup	port		
				camera		lib												
					READNE.md, design packages	.md, default	.launch, interface.yam	1										
						core												
							camera_launcher	(container for laune README.md, des	ch files, external dependencies ign.md, CNakeLists.txt) , package.xml, LIC	CENSE, rosd	oc.yaml						
								launch										
								src		This might help to remo	ove both (spinn	aker and flycap	ture) https://gith	ub.com/ros-driver	s/flir_camera_driv	er/tree/kinetic-de	vel/spinnaker_cam	nera_dri
									flycapture_camera baumer camera									
								include/camera_la										
						lib		test										
							spinnaker	README.md, des	ign.md, CMakeLists.txt	, package.xml, LIC	CENSE, rosd	oc.yaml						
								launch										
								src	spinnaker									
								include/spinnaker test										
							baumer	neares and day	ign.md, CNakeLists.txt		onwon							
								launch	ignima, crakelists.txt	, package.xml, bio	CENSE, TOSG	oc.yanı						
								src	baumer									
								include/baumer test										
							flycapture											
								README.md, des launch	ign.md, CMakeLists.txt	, package.xml, LIC	CENSE, rosd	oc.yaml						
								src	flycapture									
								include/flycapture	пусарынс									
				radar				test										
				imu gnss														
						.md, default	.launch, interface.yam	1										
					packages	core												
									ch files, dependencies)	, package.xml. 7 T/	CENSE, roed	oc.yaml						
								launch		sye.ami, bit	, 1080							
						lib			serial									
			calibration	can														
				README.md, design.r camera_intrinsics	nd													
					packages													
						core	camera_calibrator											
								README.md, des	ign.md, CMakeLists.txt	, package.xml, LIC	CENSE, rosd	oc.yaml						
								launch src										
									monocular_calibrator stereo_calibrator									
								include/camera_ca										
						lib		velbi										
				camera_lidar_extrinsics	packages													
						core	camera_lidar_calibrator											
								README.md, des	ign.md, CMakeLists.txt	, package.xml, LIC	CENSE, rosd	oc.yaml						
								launch src										
								include/camera_lid	camera_lidar_calibrator									
						IIIs.		test										
				multi_lidar_extrinsics		lib												
					packages	core												
							multi_lidar_calibrator											
								README.md, des	ign.md, CMakeLists.txt	, package.xml, LIC	CENSE, rosd	oc.yaml						
								src	multi_lidar_calibrator									
								include/multi_lidar	calibrator calibrator									
						lib		test										
				radar_lidar_extrinsics														
					packages	core												
						COIC												
						COIC	radar_lidar_calibrator	README.md. dos	ign.md, CNakeLists.txt	, package.xml. J.TC	CENSE, rosd	oc.yaml						

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and int	t prese	ents a roug	h proposal for	the directory tree in t	he Autoware.Al repo	ository. It orga	nizes the packages in the	repository base	d on its capability,								
,date:	https://	/github.com/0	CPFL/Autoware/v	viki/Overview													
		Capability	Module	Component	Component Directory	Package Type	Package	Package Directory	Node								
								include/radar_lidar	radar_lidar_calibrator _calibrator								
						lib		test									
			fusion	README.md, design.	md												
				camera_lidar	packages												
					packages	core											
							camera_lidar_projector	README.md, des	sign.md, CMakeLists.txt	, package.xml	, LICENSE, 1	osdoc.yaml					
								launch src									
									pixel_cloud_fusion								
									range_vision_fusion								
								include/camera_lid test	dar_projector								
						lib		icor									
				multi_lidar	packages												
						core	multi_lidar_fusion										
									ign.md, CMakeLists.txt	, package.xml	, LICENSE, 1	osdoc.yaml					
								launch src									
								include/multi_lidar	points_concat_fusion _fusion								
						lib		test									
				radar_lidar	podrae												
					packages	core											
							radar_lidar_fusion	README.md, des	sign.md, CMakeLists.txt	, package.xml	, LICENSE, 1	cosdoc.yaml					
								launch src									
									radar_lidar_fusion								
								include/radar_lidar test	_rusion								
			preprocessing			lib											
				README.md, design.	nd consider to use BCC	image proc "	is would require to obon	the calibration fit-	format to match ROS yaml,	and create a "	v format for co	rinsice o- ···	xacro, or other mark	anism to real-t	er the #		
				lidar_preprocessor		aye_proc, th	-> -rouse require to change t	and compression tiles		unu create a nei	rounat for ex	s, or use	or other mecha	sur to regist	ure ti		
					packages	core											
							lidar_filter	README.md. dos	ign.md, CMakeLists.txt	, package v=1	, LICENSE	cosdoc.vam1					
								launch src				,					
								src	ring_filter								
									voxel_grid_filter ray_ground_filter								
									ring_ground_filter								
								include/lidar_filters	compare_map_filter								
						lib		test									
							compare_map_filter	DESCRIPTION AND ADDRESS.	ign.md, CMakeLists.txt		TTORWOR .						
								src		, package.xm	, arcanoa, a						
								include/compare_r	compare_map map_filter								
							voxel_grid_filter	test									
									ign.md, CMakeLists.txt	, package.xml	, LICENSE, 1	osdoc.yaml					
								src	voxel_grid								
								include/voxel_grid_ test	filter								
							ring_ground_filter	README.md. des	sign.md, CMakeLists.txt	, package.xml	. LICENSE. 1	osdoc.vaml					
								src									
								include/ring_groun	ring_ground d_filter								
							ray_ground_filter	test									
								README.md, des	ign.md, CMakeLists.txt	, package.xml	, LICENSE, 1	osdoc.yaml					
									ray_ground								
								include/ray_ground test	d_filter								
		Computing	perception														
				localization	DESCRIPTION AND ADDRESS												
					packages		.launch, interface.yam	-									
						core	lidar_localizer										
								README.md, des	ign.md, CMakeLists.txt	, package.xml	, LICENSE, 1	cosdoc.yaml					
								launch src									
								al.	ndt_slam_localizer								
							vision_localizer gnss_localizer										
						lib	dead_reckoner										
							ndt_slam	pranem -:	tion and Ottober !	nachan	I TORN	roedo- ·· ·					
								README.md, des	ign.md, CMakeLists.txt	, package.xml	, LICENSE, 1	usdoc.yaml					
								include/ndt_slam	ndt_slam								
				detection				test									
						.md, default	.launch, interface.yam	1									
					packages	core											
							lidar_detector	README.md, des	sign.md, CMakeLists.txt	, package.xml	, LICENSE, 1	cosdoc.yaml					
								test launch									
								src									
									second_detector baidu_cnn_detector								
									point_pillars_detector euclidean_detector								
						lib	earned										
							second		sign.md, CMakeLists.txt	, package.xml	, LICENSE, 1	cosdoc.yaml					
								src include/second									
							point pillare	test									
							point_pillars		sign.md, CMakeLists.txt	, package.xml	, LICENSE, 1	cosdoc.yaml					
								src include/point_pillar	ns								
							baidu_cnn	test									
									ign.md, CMakeLists.txt	, package.xml	, LICENSE, 1	cosdoc.yaml					
								src include/baidu_cnn		, package.xml	, LICENSE, 1	osdoc.yaml					
							euclidean	src include/baidu_cnn test									

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		ents a roug componen github.com/C		its application in an a	ne Autoware.Al repo autonomous vehicle.	ository. It organ	nizes the packages in the	repository base	d on its capability,						
update:					Comment Pinston	Destruction Trans	Dark	Dealers Disselve	Node						
		Capability	Module	Component	Component Directory	Package Type		Package Directory test	Node						
									ign.md, CMakeLists.txt	, package.xml	, LICENSE, r	osdoc.yaml			
								src	roi_filter	(way_area)					
								include/object_filte		(L shape)					
					submodules			test							
					Sacriodales	lib	caffe								
									ign.md, CMakeLists.txt	, package.xml	, LICENSE, r	osdoc.yaml			
								src include/caffe							
							tensorflow	test (wrapper)							
								src	ign.md, CMakeLists.txt	, package.xml	, LICENSE, r	osdoc.yaml			
								include/tensorflow test							
							pytorch	(wrapper)	ign.md, CMakeLists.txt	. nackage vml	. LICENSE. r	osdoc vaml			
								src include/pytorch	, , , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,					
								test							
									ign.md, CMakeLists.txt	, package.xml	, LICENSE, r	osdoc.yaml			
								src include/darknet							
							tensorrt	test (wrapper)							
								README.md, des	ign.md, CMakeLists.txt	, package.xml	, LICENSE, r	osdoc.yaml			
								include/tensorrt test							
				tracking	nackanee										
					packages	core	able at tractic								
									ign.md, CMakeLists.txt	, package.xml	, LICENSE, r	osdoc.yaml			
								test launch							
								src	imm_ukf_pda_tracker						
						lib	imm_ukf_pda								
								README.md, des	ign.md, CMakeLists.txt	, package.xml	, LICENSE, r	osdoc.yaml			
								include/imm_ukf_p test	da						
				prediction	packages			rudi							
						core									
									ign.md, CMakeLists.txt	, package.xml	, LICENSE, r	osdoc.yaml			
								test launch							
								src	naive_linear_predictor						
						lib			map_lane_predictor						
							map_lane_fitter	DEADME we doe	ign.md, CMakeLists.txt	nackago vel	I TOPMOP -	ondon usmi			
								src include/map_lane_		, package.km	, 110111011, 1	osuoc.yanı			
			planning					test	incer						
			planning	decision											
					packages	core									
									ign.md, CMakeLists.txt	, package.xml	, LICENSE, r	osdoc.yaml			
								test launch							
								src	decision_maker						
						lib	decision_voice								
								README.md, des	ign.md, CMakeLists.txt	, package.xml	, LICENSE, r	osdoc.yaml			
								include/decision_v	oice						
				mission				test							
					packages	core									
									ign.md, CMakeLists.txt	, package.xml	, LICENSE, r	osdoc.yaml			
								test launch							
								src	route_search_planner						
							lane_planner								
								README.md, des	ign.md, CMakeLists.txt	, package.xml	, LICENSE, r	osdoc.yaml			
								launch src							
								art.	lane_navigation_planner						
						lib			lane_selection_planner						
				motion											
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		Actuation	vehicles												
				as ymc											
	:	System	a of oh	j.//u											
			safety	anormaly											
				timing failure											
			security logging												
	:	Simulation	simulators												
				gazebo_simulator	README.md. design	.md, default	launch, interface.yam	1							
					packages		,errace.yan.								
						core	gazebo_simulator_interface								
				lgsvl_simulator		lib									
					README.md, design packages		launch, interface.yam	1							
						core	Igsvl_simulator_interface								
				carla_simulator		lib									
						n.md, default	launch, interface.yam	1							
					packages										
					packages	core	carla_simmultor_interface								