

Scope	Description	Counts
FULL_SYSTEM	The repo is about the full system (e.g., a robot, groups of robots)	122
SUBSYSTEM	The repo contains the implementation of a component which is meant to be used in the context of a larger system	213
TBD	To be discussed	
System type	Description	Counts
Ground	Ground robot	94
Aerial	Aerial robot	38
Underwater	Underwater robot	10
Acquatic	Acquatic robot	10
Service	Service robot (e.g., Roomba)	34
Manu	Manufacturing robots (e.g., industrial robotic arms)	52
Selfdriving_car	Self-driving car	9
Humanoid	Humanoid robots	17
GEN	Generic (it can be used independently of any specific application domain)	85
TBD	To be discussed	0
Other	Other types of uncategorized systems (e.g., surgical)	2
		0
		0
Capability	Description	Counts
Vision	Vision	32
Planning	Planning (e.g., how to reach a certain pose)	38
Sensing	Sensing	16
Control	Anything related to controlling an entity (e.g., automatic control, joystick-based navigation)	49
Slam	SLAM algorithms	14
Infrastructural	Infrastructural internal services (e.g., self-healing infrastructure, monitoring and logging components)	19
Integration	The main provided functionality is the Integration between the ROS system with external systems (e.g., the cloud, a web page, apps, etc.)	22
DevSupport	Exporters, visualizers, GUIs. These are used by developers at dev time.	14
Localization	Subsystem or framework for working out where in the map a robot is	5
Navigation	Subsystem for implementing navigation of the robot through the world	30
Mapping	Subsystem for building a map of what is surrounding the robot	6
Base	Subsystem containing the base components of the whole ROS-based system (e.g., bring-up components, basic configurations, hardware-specific nodes, etc.)	15
Audio	Subsystem for managing audio interfaces (e.g., speech recognition, audio synthesis, etc.)	2
FULL	The full system is realized in this repo	122
TBD	To be discussed	
SA documented	Description	Counts
YES	The software architecture (SA) of the system is described at least in terms of nodes (or services), topics AND their CONFIGURATION	55
NO	No mentioning at all of ROS nodes, topics, etc.	220
PARTIALLY	Only a detailed list of used topics, services, nodes, but not all of them together (i.e., no configuration)	60
Included in dataset?		
YES	Included	
NO	Excluded	
TBD	To be discussed	
Violated criterion		
	Inclusion criteria	
I1	The repo contains a ROS-based system defined as either a ROS application or a ROS application framework	
I2	The repo contains a ROS-based system which can be physically deployed either on a robot or on a general purpose machine like a laptop (e.g., not just in a simulation platform like Gazebo)	
	Exclusion criteria	
E1	The repo contains only a student project; submission to a robotics competition; or support materials for tutorials, workshops, university courses, exams, competitions, etc.	
E2	The repo contains only data, model definitions, simulators, or plugins for simulation (e.g., Gazebo)	
E3	The repo is clearly or admittedly incomplete or deprecated	
E4	The repo contains only collections of potentially useful snippets of code, examples, or templates	
E5	The repo is clearly or admittedly only about experimenting with ROS or a demo	
E6	The repo contains only testing artifacts (e.g., test cases)	
E7	The repo contains only a ROS driver or an interface layer between ROS and hardware	
E8	The repo contains only a software development tool (e.g., an inspector for ROS nodes)	
E9	The repo contains only a wrapper around an existing library for using it within a ROS-based system	
E10	The repo is clearly or admittedly a duplicate of an already considered repo	
E11	The description or the readme of the repo is in English	