RRT

Generated by Doxygen 1.9.3

Chapter 1

Class Index

1.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

Chapter 2

Class Documentation

2.1 RRT.algorithm.basicRRT.BasicRRT Class Reference

Public Member Functions

- def __init__ (self, DroneInfo drone_info, MissionInfo mission_info, np.float64 explore_prob, np.float64 step↩ _size, np.int32 max_attempts=np.Infinity)
- bool run (self)

2.1.1 Detailed Description

2.1.2 Constructor & Destructor Documentation

2.1.2.1 __init__()

2.1.3 Member Function Documentation

2.1.3.1 run()

The documentation for this class was generated from the following file:

- RRT/algorithm/basicRRT.py

2.2 RRT.core.droneinfo.DroneInfo Class Reference

The documentation for this class was generated from the following file:

- RRT/core/droneinfo.py

2.3 RRT.core.mapinfo.MapInfo Class Reference

Public Member Functions

- def __init__ (self, List[str] map, str sample_level)
- bool **is_valid** (self)
- bool is_feasible (self, RouteInfo route_info)

2.3.1 Constructor & Destructor Documentation

2.3.1.1 __init__()

2.3.2 Member Function Documentation

2.3.2.1 is_feasible()

The documentation for this class was generated from the following file:

- RRT/core/mapinfo.py

2.4 RRT.core.missioninfo.MissionInfo Class Reference

The documentation for this class was generated from the following file:

- RRT/core/missioninfo.py

2.5 RRT.core.routeinfo.RouteInfo Class Reference

Public Member Functions

- def __init__ (self, NDArray[(Any)] sequence, NDArray[(Any, Any)] coords, np.float64 length)
- Union[NDArray[(Any)], NDArray[(Any, Any)]] get_route (self, str route_type="sequence")
- np.float64 get_length (self)
- bool is_feasible (self)

2.5.1 Constructor & Destructor Documentation

2.5.1.1 __init__()

2.5.2 Member Function Documentation

2.5.2.1 get_length()

2.5.2.2 get_route()

2.5.2.3 is_feasible()

The documentation for this class was generated from the following file:

- RRT/core/routeinfo.py

2.6 RRT.core.tree.RRT Class Reference

Public Member Functions

- def __init__ (self, NDArray[Any] origin, NDArray[Any] target)
- nx.classes.reportviews.NodeDataView get_nodes (self)
- nx.classes.reportviews.EdgeDataView get_edges (self)
- int get_nearest_neighbors (self, NDArray[Any] node_info)
- RouteInfo get_route (self, NDArray[Any] origin=None, NDArray[Any] target=None)
- RRT merge_from_trees (cls, List[RRT] trees)
- int add_node (self, NDArray[Any] node_info)
- None add_edge (self, int currID, int newID, np.float64 weight=None)

Public Attributes

- is_reach_target

2.6.1 Constructor & Destructor Documentation

2.6.1.1 __init__()

2.6.2 Member Function Documentation

2.6.2.1 add_edge()

2.6.2.2 add_node()

2.6.2.3 get_edges()

2.6.2.4 get_nearest_neighbors()

2.6.2.5 get_nodes()

2.6.2.6 get_route()

2.6.2.7 merge_from_trees()

The documentation for this class was generated from the following file:

- RRT/core/tree.py

2.7 RRT.algorithm.RRT_Connect.RRT_Connect Class Reference

The documentation for this class was generated from the following file:

- RRT/algorithm/RRT_Connect.py

2.8 RRT.algorithm.RRT_Star.RRT_Star Class Reference

The documentation for this class was generated from the following file:

- RRT/algorithm/RRT_Star.py