kids_next_door Revised Class Diagram

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December 9, 2019

Navigation

- handler: ros::Nodehandle
- server: ros::ServiceServer
- goal:
move_base_msgs::MoveBaseGoal

+ Navigation()
+ ~Navigation()
+ initializeServiceServers() : void
+ getGoal():
move_base_msgs::MoveBaseGoal
+ setGoal(const
geometry_msgs::PoseStamped&): void
+ moveToSrv
(kids_next_door::moveTo::Request&,
kids_next_door::moveTo::Response&):
bool

ROSModule

+ ROSModule()
+ initializeSubscribers(): void
+ initializePublishers(): void
+ initializeServiceServers(): void
+ initializeServiceClients(): void
+ initializeTransformBroadcaster(): void
+ initializeTransformListener(): void
+ initializeActionClients(): void

ToyDetection

- listener: tf::TransformListener
- server : ros::ServiceServer
- transform: tf::StampedTransform
- currToyID: double
- arucoSub: ros::Subscriber
- nh: ros::NodeHandle
- detectionFlag: std_msgs::Bool
- toyPose: geometry::PoseStamped

+ ToyDetection()
+ ~ToyDetection()
+ initializeSubscribers(): void
+ initializeServiceServers(): void
+ detectArUco(): int
+ detectionCb(const std_msgs::Bool::ConstPtr&): void
+ findToySrv(kids_next_door::toyFound::Request&,
kids_next_door::toyFound::Response&): bool

TaskPlanner

- nh: ros::NodeHandle
- toyIDs: std::vector<int>
- toyPose: geometry_msgs::PoseStamped
- storagePose: geometry_msgs::PoseStamped
- searchPoses:
std::vector<geometry_msgs::PoseStamped>
- toyFoundClient: ros::ServiceClient

+ TaskPlanner()
+ TaskPlanner(std::istream&, std::ostream&)
+ storeToy(): int
+ pickUpToy(): int
+ taskPlanner(): int
+ lookForToy(int): int
+ moveToPose(geometry_msgs::PoseStamped): int

UserInterface

- inputStream: std::istream&
- outputStream: std::ostream&

+ UserInterface()
+ UserInterface(std::istream&,
std::ostream&)
+ getIDs(): std::vector<int>
+ getStorageLocation():
geometry_msgs::PoseStamped