## KukaKinematics

- n: ros::NodeHandle
- jointPublisher: ros::Publisher
- jointCommands: trajectory\_msgs::JointTrajectory
- numJoints: const unsigned int
- posJoints: double\*\*
- + States: enum
- + statesStr: std::vector<std::string>
- + sendRobotToPos(const States &)
- initializeTrajectoryPoint()

## Detection

- n: ros::NodeHandle
- imgT: image\_transport::ImageTransport
- imageSubscriber: image\_transport::Subscriber
- cv\_ptr: cv\_bridge::CvImagePtr OPENCV\_WINDOW: const std::string
- kuka: KukaKinematics &
- displmg: bool
- + Detection(KukaKinematics &, const bool &)
- + colorThresholder(const KukaKinematics::States &): std::string
- + readImg(const sensor\_msgs::ImageConstPtr &)

## Gripper

- n: ros::NodeHandle
- gripperOn: ros::ServiceClient
- gripperOff: ros::ServiceClient
- gripperSubscriber: ros::Subscriber
- gripperState: bool
- + gripperToggle(const bool &)
- + getGripperState(): bool
- gripperCallback(const std\_msgs::Bool &)