

# SMACC

## New Architecture Spec

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### 1. Filling Out Client Library

#### ros\_control Client

[https://github.com/ros-controls/ros\\_control/tree/melodic-devel/controller\\_manager\\_msgs/msg](https://github.com/ros-controls/ros_control/tree/melodic-devel/controller_manager_msgs/msg)

[https://github.com/ros-controls/ros\\_control/tree/melodic-devel/controller\\_manager\\_msgs/srv](https://github.com/ros-controls/ros_control/tree/melodic-devel/controller_manager_msgs/srv)

#### reelrbtx\_client

Inherits (or includes) ros\_control client? – I'm not sure how this would work.

Loads controller. Reads error msgs.

#### BatteryMonitor Client

[http://docs.ros.org/melodic/api/sensor\\_msgs/html/msg/BatteryState.html](http://docs.ros.org/melodic/api/sensor_msgs/html/msg/BatteryState.html)

BaseClient: `SMACC\smacc\include\smacc\interface_components\smacc_topic_subscriber.h`

PClient: `SMACC\smacc_client_library\smacc_interface_components\include\smacc_sensor_client\clients\sensor_client.h`

Client: `SMACC\smacc_client_library\smacc_battery_monitor\include\clients\battery_monitor_client.h`

If voltage is < x, then event (float32 voltage)

If overheated, then event (uint8 power\_supply\_health=2)

If unspecified failure, then event (uint8 power\_supply\_health=5)

\*PSubstate: `SMACC\smacc_client_library\smacc_interface_components\include\smacc_sensor_client\substate_behaviors\sensor_substate.h` (\*\*\*)This links to the client)

Substate: `SMACC\smacc_sm_examples\sm_dance_bot\include\sm_dance_bot\substate_behaviors\battery_monitor\sb_battery_health_check.h`

If battery is good, then event (uint8 power\_supply\_health=1)

#### MoveIt! Client (The absolute minimum here. Think catkin\_pkg\_create)

[https://github.com/ros-planning/moveit/blob/master/moveit\\_plugins/moveit\\_simple\\_controller\\_manager/src/moveit\\_simple\\_controller\\_manager.cpp](https://github.com/ros-planning/moveit/blob/master/moveit_plugins/moveit_simple_controller_manager/src/moveit_simple_controller_manager.cpp)

#### Lord Microstrain (IMU) Client

[https://github.com/ros-drivers/microstrain\\_mips](https://github.com/ros-drivers/microstrain_mips)

<https://clearpathrobotics.com/blog/2019/05/clearpath-updates-lord-microstrain-imu-ros-driver-with-key-features/>

[https://github.com/ros-drivers/microstrain\\_mips/blob/master/msg/status\\_msg.msg](https://github.com/ros-drivers/microstrain_mips/blob/master/msg/status_msg.msg)

[https://github.com/ros-drivers/microstrain\\_mips/tree/master/srv](https://github.com/ros-drivers/microstrain_mips/tree/master/srv)

### **SICK Client**

[https://github.com/SICKAG/sick\\_scan](https://github.com/SICKAG/sick_scan)

[https://github.com/SICKAG/sick\\_scan/blob/master/driver/src/sick\\_generic\\_caller.cpp](https://github.com/SICKAG/sick_scan/blob/master/driver/src/sick_generic_caller.cpp)

[https://github.com/SICKAG/sick\\_scan/blob/master/cfg/SickScan.cfg](https://github.com/SICKAG/sick_scan/blob/master/cfg/SickScan.cfg)