Commands Messaging Protocol

# MQTT broker topics

Considering we have three different systems/components our team decided that each of them would have separate controllers meaning we can implement 3 topics to distribute messages properly between components. Here are the names of three topics:

* “studentinc/acme/xyzManipulator”
* “studentinc/acme/extruder”
* “studentinc/acme/cabinet”
* “studentinc/acme/cabinet/hum”
* “studentinc/acme/cabinet/temp”

First part of each topic stays for team’s name to differentiate our message stream from other possible clients of the broker. Second part specifies the project name to make connection between components. Third part represents the actual name of component.

# Sets of commands

## XYZ manipulator

* Send
  + Position? (Not sure if it’s possible)
* Receive
  + Destination position on three axes
  + Value should be between 0 and 4096 (2 rounds)

## Extruder

* Send
  + Current temperature
* Receive
  + Extruder turn ON/OFF
  + Set temperature.

## Cabinet

* Send
  + Humidity ($H+{Humidity})
  + Temperature($T+{Temperature})
  + Platform leveling ($P+{Level})
* Receive
  + Turn fan ON/OFF
  + Open/Close door