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| Project | **Standard for Actuator Interface for Cyber and Physical World**  <https://sagroups.ieee.org/2888/ **>** |
| Title | **Application Programming Interfaces for Sight Related Actuators** |
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| Source(s) | Yegi Lee [zxcasd312@naver.com](mailto:zxcasd312@naver.com) (Konkuk University)  Shin Kim [new.xin22@gmail.com](mailto:new.xin22@gmail.com) (Konkuk University)  Kyoungro Yoon [yoonk@konkuk.ac.kr](mailto:yoonk@konkuk.ac.kr) (Konkuk University) |
| Re: |  |
| Abstract | This contribution proposes the application programming interfaces for sight related actuators. |
| Purpose | To start discussion on purpose of the standard |
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# Introduction

This contribution proposes the application programming interfaces for sight related actuators.

Sight related actuators include:

* Light actuator
* Flash actuator

# API for individual actuators

Table 1 – Light API

|  |  |
| --- | --- |
| Nested Classes | |
| Modifier and Type | Method and Description |
|  |  |
| Constructor | |
| Constructor and Description | |
| Light() | |
| *Default constructor.* | |
|  | |
| Light(String id) | |
|  | |
| Light(String id, String serverIPAddress, integer serverPort) | |
|  | |
| Fields | |
| Modifier and Type | Field and Description |
|  |  |
| Methods | |
| Modifier and Type | Method and Description |
| int | setLightComplexCommand(colorType color, int intensity) |
|  | *This function sets a command to designate a light color and control the intensity of the light actuator. This function shall include a color parameter defined by colorType from IEEE2888.2(Section 4.2.3) with the intensity parameter. If the command succeeds, this function returns 1; otherwise, it returns 0.* |
|  |  |
| int | setLightColor(colorType color) |
|  | *This function sets a command to designate a light color of the light actuator. This function shall include a color parameter defined by colorType from IEEE2888.2(Section 4.2.3). If the command succeeds, this function returns 1; otherwise, it returns 0.* |
|  |  |
| Int | setLightIntensity(int intensity) |
|  | *This function sets a command to control the intensity of brightness on the light actuator. This function shall include the intensity parameter. If the command succeeds, this function returns 1; otherwise, it returns 0.* |
|  |  |

Table 2 – Flash API

|  |  |
| --- | --- |
| Nested Classes | |
| Modifier and Type | Method and Description |
|  |  |
| Constructor | |
| Constructor and Description | |
| Flash() | |
| *Default constructor.* | |
|  | |
| Flash(String id) | |
|  | |
| Flash(String id, String serverIPAddress, integer serverPort) | |
|  | |
| Fields | |
| Modifier and Type | Field and Description |
|  |  |
| Methods | |
| Modifier and Type | Method and Description |
| int | setFlashComplexCommand(ColorType color, int intensity, int frequency) |
|  | *This function sets a command to designate a light color and control the intensity and frequency of the flash actuator. This function shall include a color parameter defined by colorType from IEEE2888.2(Section 4.2.3) with the intensity and frequency parameter. If the command succeeds, this function returns 1; otherwise, it returns 0.* |
|  |  |
| int | setFlashColor(ColorType color) |
|  | *This function sets a command to designate a color of the flash actuator. This function shall include a color parameter defined by ColorType from IEEE2888.2(Section 4.2.3). If the command succeeds, this function returns 1; otherwise, it returns 0.* |
|  |  |
| Int | setFlashIntensity(int intensity) |
|  | *This function sets a command to control the intensity of brightness on the flash actuator. This function shall include the intensity parameter. If the command succeeds, this function returns 1; otherwise, it returns 0.* |
|  |  |
| Int | setFlashFrequency(int frequency) |
|  | *This function sets a command to control the frequency of the flash actuator. This function shall include the frequency parameter. If the command succeeds, this function returns 1; otherwise, it returns 0.* |
|  |  |