Communication (Arduino ⬄ Server)

All the “Requests” and “Responses” here:

* refer to the body of the HTTP messages;
* are written in JSON.

# Registration

URL = www.mkafeina.eesc.usp.br/api/registration

## RegistrationRequest (Arduino 🡪 Server)

{

mac : <<string>>,

|  |  |
| --- | --- |
| registrationMessage | Meaning |
| 0 | Undefined |
| 100 | Registration Attempt |
| 101 | Registration Acceptance |
| 200 | Offsets |
| 300 | Unregister |

registrationMessage : <<int>>,

uniqueName : <<string>>,

coffeeEmptyOffset : <<int>>,

coffeeFullOffset : <<int>>,

waterEmptyOffset : <<int>>,

waterFullOffset : <<int>>,

milkEmptyOffset : <<int>>,

|  |  |
| --- | --- |
| offsets | Meaning |
| < 0 | Ingredient not available |
| >= 0 | Sensor offset |

milkFullOffset : <<int>>,

sugarEmptyOffset : <<int>>,

sugarFullOffset : <<int>>

}

## RegistrationResponse (Server 🡪 Arduino)

|  |  |
| --- | --- |
| responseCode | Meaning |
| -1 | Null response |
| 200 | Ok |
| 400 | Cancel |

{

responseCode : <<int>>,

trueUniqueName : <<string>>

}

# Report

URL = [www.mkafeina.eesc.usp.br/api/report](http://www.mkafeina.eesc.usp.br/api/report)

## ReportRequest (Arduino 🡪 Server)

|  |  |
| --- | --- |
| reportMessage | Meaning |
| 0 | Undefined |
| 100 | Levels |
| 900 | Disabling |

{

mac : <<string>>,

reportMessage : <<string>>,

isEnabled : <<bool>>,

coffeeLevel : <<int>>,

waterLevel : <<int>>,

|  |  |
| --- | --- |
| Levels | Meaning |
| < 0 | Ingredient not available |
| >= 0 | Sensor signal |

milkLevel : <<int>>,

sugarLevel : <<int>>

}

## ReportResponse (Server 🡪 Arduino)

|  |  |
| --- | --- |
| responseCode | Meaning |
| -1 | Null response |
| 200 | Ok |
| 400 | Cancel |

{

responseCode : <<int>>,

command : <<int>>

}

|  |  |
| --- | --- |
| command | Meaning |
| 0 | Undefined |
| 1 | Do nothing |
| 100 | Get coffee order |
| 200 | Disable |
| 201 | Disabling Confirmed |

# Order

URL = [www.mkafeina.eesc.usp.br/api/order](http://www.mkafeina.eesc.usp.br/api/order)

## OrderRequest (Arduino 🡪 Server)

|  |  |
| --- | --- |
| orderMessage | Meaning |
| 0 | Undefined |
| 100 | Give me an order |
| 200 | Processing will start |
| 300 | Order ready |
| 400 | Problem occurred during processing |

{

mac : <<string>>,

orderMessage : <<int>>,

orderReference : <<uint>>

}

## OrderResponse (Server 🡪 Arduino)

|  |  |
| --- | --- |
| responseCode | Meaning |
| -1 | Null response |
| 200 | Ok |
| 400 | Cancel |

{

responseCode : <<int>>,

orderReference : <<int>>,

recipe : <<string>>

}

Recipe notation:

**([ingredient1]=[value1],[ingredient2]=value2,[…]).**

Ingredients : <<char>>.

Values : <<int>>.

Ex1: (c=2,w=200).

Ex2: (c=1,w=200,m=100,s=2).

List of ingredients:

|  |  |
| --- | --- |
| Char | Ingredient |
| c | Coffee |
| w | Water |
| m | Milk |
| s | Sugar |