



WebAPI

Retractable Tray Movement

2022/11/04

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Ramona Optics

Setup

- Plug screen and keyboard into display port and USB on "chickadee" (provided computer)
- Plug in ethernet cable
- Power on Chickadee
- Go to networking settings to find IP address
- Ex: **10.37.129.135**, write this number down
- Enter IP address of the Chickadee into a browser on a computer connected to the same network.
- ex: <https://10.37.129.135:8800/docs>

Before shipment, you can try:

<https://webmcamdemo.ramonalabs.com:8800/docs>

1. Click here

Wired Settings

2. Read here

10.37.129.135

Example



Opening the API Documentation



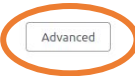
Your connection is not private

Attackers might be trying to steal your information from **webmcamdemo.ramonalabs.com** (for example, passwords, messages, or credit cards).
[Learn more](#)

NET::ERR_CERT_COMMON_NAME_INVALID

To get Chrome's highest level of security, [turn on enhanced protection](#)

1. Click here



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NET::ERR_CERT_COMMON_NAME_INVALID

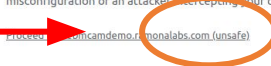
To get Chrome's highest level of security, [turn on enhanced protection](#)

Hide advanced

Back to safety

This server could not prove that it is **webmcamdemo.ramonalabs.com**; its security certificate is from **glgazoom.ramonaoptics.com**. This may be caused by a misconfiguration or an attacker intercepting your connection.

2. Click here





Navigate to Demo Web Server

- When ethernet is plugged into MCAM, MCAM will initiate virtual web server
- To access the virtual web server, join local network.
- Open web browser and navigate to the following link:

<https://webmcamdemo.ramonalabs.com:8800/docs>



Link brings you to the
Documentation Page
for the MCAM API

WebMCAM API by Ramona Optics

[/openapi.json](#) 0.18.138 OAS3

The Ramona Optics WebAPI for MCAM control.

[Authorize](#)

WebMCAM

GET

`/v1/mcam/{serial_number}/state/search`

List of available states for the specific MCAM.

GET

`/v1/mcam/{serial_number}/state`

Get the current state of the MCAM

POST

`/v1/mcam/{serial_number}/state`

Set the state of the MCAM

GET

`/v1/mcam/{serial_number}/assay/search`

List available assays for the particular MCAM.

GET

`/v1/mcam/{serial_number}/assay/{assay_name}`

MCAM Assay Information

POST

`/v1/mcam/{serial_number}/assay/{assay_name}`

MCAM Run Assay

GET

`/v1/mcam/{serial_number}/assay/{assay_name}/configuration`

List available configurations for a given assay

GET

`/v1/status`

MCAM Instrument Status Information

GET

`/v1/mcam/search`

List available MCAMs for connection



List MCAMs, should prompt login

GET /v1/mcam/search List available MCAMs for connection

Parameters
No parameters

Execute

Responses

Curl

```
curl -X 'GET' \
  'https://webcamdemo.ramonalabs.com:8800/v1/mcam/search' \
  -H 'accept: application/json'
```

Request URL
`https://webcamdemo.ramonalabs.com:8800/v1/mcam/search`

Server response

Code	Details
200	Response body<pre>{ "success": true, "timestamp": "2022-11-03T18:17:44.539152+00:00", "data": { "serial_numbers": ["0x4EADBEEFCAFE1010BA5EEA11", "0x4EADBEEFCAFE1010BA5EEA11"] } }</pre>

Sign in

https://webcamdemo.ramonalabs.com:8800

Username

ramona

Password

.....

Cancel

Sign in

User: ramona

PW: gigapixelstaging

Hitting "Execute" will list the serials for available MCAM devices.

The serial listed will be used in all future calls through the API



Initiate Connection with chosen MCAM

Each communication requires you to specify the serial number at the top of the dropdown

After you hit Execute, connection with mcam will open

You are looking for:

`"success": true`

POST `/v1/mcam/{serial_number}` Initiate communication with an MCAM with the given serial number.

Parameters

Name	Description
serial_number * required string (path)	0x4EADBEEFCAFE1010BA5EEA11

Execute

Responses

Curl

```
curl -X 'POST' \
  'https://webcamdemo.ramonalabs.com:8800/v1/mcam/0x4EADBEEFCAFE1010BA5EEA11' \
  -H 'accept: application/json' \
  -d ''
```

Request URL

```
https://webcamdemo.ramonalabs.com:8800/v1/mcam/0x4EADBEEFCAFE1010BA5EEA11
```

Server response

Code	Details
200	Response body <pre>{ "success": true, "timestamp": "2022-11-03T18:18:30.073283+00:00", "data": { "available": true, "connected": true, "state": "acquisition", "serial_number": "0x4EADBEEFCAFE1010BA5EEA11" } }</pre>



List the available states

As of 2022 / 11 / 03

There are 3 available mechanical states:

“acquisition”

“sample_loading”

“sample_unloading”

GET /v1/mcam/{serial_number}/state/search List of available states for the specific MCAM.

Parameters

Name	Description
serial_number * required string (path)	0x4EADBEEFCAFE1010BA5EEA11

Execute

Response

200

Response body

```
{
  "success": true,
  "timestamp": "2022-11-03T18:20:04.906645+00:00",
  "data": {
    "available_states": [
      "acquisition",
      "sample_loading",
      "sample_unloading"
    ]
  }
}
```



Change the mechanical state

POST `/v1/mcam/{serial_number}/state` Set the state of the MCAM

Parameters

Name	Description
serial_number ★ required string <i>(path)</i>	0x4EADBEEFCAFE1010BA5EEA11

Request body required

```
{  
  "state": "sample_loading"  
}
```

Enter chosen mechanical state into the `/v1/mcam/{serial_number}/state` API request, and hit Execute. This should drive stage to requested state

Responses

Curl

POST `/v1/mcam/{serial_number}/state` Set the state of the MCAM

Parameters

Name	Description
serial_number ★ required string <i>(path)</i>	0x4EADBEEFCAFE1010BA5EEA11

Request body required

```
{  
  "state": "acquisition"  
}
```

Responses

Curl