# **API Reference**

# Progetto CHeArlA

**API Version: 1.0** 

Documentazione del backend del progetto CHeArIA

CONTACT

URL: https://progettochearia.it

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# **API**

# 1. BOARD

REST API dedicate all'hardware del progetto, per esempio quella per caricare i dati su DB

```
1.1 GET /board/time
```

#### Gettime

#### **REQUEST**

No request parameters

#### **RESPONSE**

```
STATUS CODE - 200: Successful Response
```

RESPONSE MODEL - text/plain

string

# 1.2 GET /board/timems/{tz}

#### **Gettimems**

# **REQUEST**

#### **PATH PARAMETERS**

```
NAME TYPE DESCRIPTION

*tz string
```

#### **RESPONSE**

```
STATUS CODE - 200: Successful Response
  RESPONSE MODEL - text/plain
string
STATUS CODE - 422: Validation Error
  RESPONSE MODEL - application/json
    detail [{
    Array of object:
       loc*
         ANY OF
         prop0
         string
         prop1
         integer
       msg* string
       type* string
    }]
  }
```

#### 1.3 GET /board/timems

#### **Gettimems**

# **REQUEST**

#### **QUERY PARAMETERS**

```
NAME TYPE DESCRIPTION
tz string
```

#### **RESPONSE**

```
STATUS CODE - 200: Successful Response
  RESPONSE MODEL - text/plain
string
STATUS CODE - 422: Validation Error
  RESPONSE MODEL - application/json
  {
    detail [{
    Array of object:
       loc*
         ANY OF
         prop0
         string
         prop1
         integer
       msg* string
       type* string
    }]
  }
```

# 1.4 GET /board/time/hour

#### Gettime H

# **REQUEST**

No request parameters

#### **RESPONSE**

```
STATUS CODE - 200: Successful Response
```

RESPONSE MODEL - text/plain

string

# 1.5 GET /board/time/min

### **Gettime Min**

# **REQUEST**

No request parameters

# **RESPONSE**

STATUS CODE - 200: Successful Response

RESPONSE MODEL - text/plain

string

# 1.6 GET /board/date/{tz}

Getdate

# **REQUEST**

#### **PATH PARAMETERS**

```
NAME TYPE DESCRIPTION

*tz string
```

#### **RESPONSE**

```
STATUS CODE - 200: Successful Response
  RESPONSE MODEL - text/plain
string
STATUS CODE - 422: Validation Error
  RESPONSE MODEL - application/json
  {
    detail [{
    Array of object:
       loc*
         ANY OF
         prop0
         string
         prop1
         integer
       msg* string
       type* string
    }]
  }
```

# 1.7 GET /board/date

#### Getdate

#### **REQUEST**

#### **QUERY PARAMETERS**

NAME	TYPE	DESCRIPTION
tz	string	

#### **RESPONSE**

```
STATUS CODE - 200: Successful Response
    RESPONSE MODEL - text/plain
  string
  STATUS CODE - 422: Validation Error
    RESPONSE MODEL - application/json
      detail [{
      Array of object:
         loc*
           ANY OF
           prop0
           string
           prop1
           integer
         msg*
                string
         type* string
      }]
    }
1.8 PUT /board/putdata/{dataid}
Putdata
REQUEST
  PATH PARAMETERS
  NAME
            TYPE
                                                                                    DESCRIPTION
   *dataid string
            PATTERN: (itwork|example|CO|altitude|humidity|ozone|pressure|temperature)
 REQUEST BODY - application/json
    datavalue* number The value of data from sensor
    timestamptz string 2 to 3 chars
                            The timzone to use to calculate the timestamp
    key*
                   string 32 to 32 chars
                            The key for authenticate request
  }
RESPONSE
 STATUS CODE - 200: Successful Response
    RESPONSE MODEL - text/plain
  string
```

STATUS CODE - 422: Validation Error

detail [{
Array of object:
 loc\*

RESPONSE MODEL - application/json

```
ANY OF
prop0
string
prop1
integer
msg* string
type* string
}]
```

# 2. RESOURCES

REST API dedicate alla gestione delle risorse, permettono di recuperare i dati dal DB e i grafici elaborati dal server

# 2.1 GET /resources/graph/all

**List All Graphs** 

#### **REQUEST**

#### **QUERY PARAMETERS**

```
NAME TYPE DESCRIPTION
type string
```

#### **RESPONSE**

```
STATUS CODE - 200: Successful Response
  RESPONSE MODEL - application/json
undefined
STATUS CODE - 422: Validation Error
  RESPONSE MODEL - application/json
    detail [{
    Array of object:
       loc*
         ANY OF
         prop0
         string
         prop1
         integer
       msg*
              string
       type* string
    }]
  }
```

# 2.2 POST /resources/graph/query

**Query Graph** 

# **REQUEST**

#### **QUERY PARAMETERS**

NAME	TYPE	DESCRIPTION
dataid array of string		
gte	string 10 to 19 chars	
lte	string 10 to 19 chars	

NAME TYPE DESCRIPTION

unique string
10 to 10 chars
PATTERN: ((((19|20)([2468][048]|[13579][26]|0[48])|2000)-02-29|((19|20)[0-9]{2}-(0[4678]|
1[02])-(0[1-9]|[12][0-9]|30)|(19|20)[0-9]{2}-(0[1359]|11)-(0[1-9]|[12][0-9]|3[01])|(19|20)[0-9]{2}-02-

#### **RESPONSE**

```
STATUS CODE - 200: Successful Response
  RESPONSE MODEL - application/json
undefined
STATUS CODE - 422: Validation Error
  RESPONSE MODEL - application/json
    detail [{
    Array of object:
       loc*
         ANY OF
         prop0
         string
         prop1
         integer
       msg*
             string
       type* string
    }]
  }
```

(0[1-9]|1[0-9]|2[0-8])))

# 2.3 GET /resources/datas

#### **List All Data**

#### **REQUEST**

#### **QUERY PARAMETERS**

NAME	TYPE	DESCRIPTION
*datai d	array of string PATTERN: (itwork example CO altitude humidity ozone pressure temperature)	
gte	string 10 to 19 chars PATTERN: ^(((((19 20)([2468][048] [13579][26] 0[48]) 2000)-02-29 ((19 20)[0-9] {2}-(0[4678] 1[02])-(0[1-9] [12][0-9] 30) (19 20)[0-9]{2}-(0[1359] 11)-(0[1-9] [12] [0-9] 3[01]) (19 20)[0-9]{2}-02-(0[1-9] 1[0-9] 2[0-8])))_([01][0-9] 2[0-3]):([012345] [0-9]):([012345][0-9])) (((19 20)([2468][048] [13579][26] 0[48]) 2000)-02-29 ((19 20)[0-9]{2}-(0[4678] 1[02])-(0[1-9] [12][0-9] 30) (19 20)[0-9]{2}-(0[1359] 11)-(0[1-9] [12][0-9] 3[01]) (19 20)[0-9]{2}-02-(0[1-9] 1[0-9] 2[0-8]))))?\$	Data d'inizio, ex: 2022-05-15_10:24:00 or 2022-05-15

NAME	ТҮРЕ	DESCRIPTION
lte	string 10 to 19 chars PATTERN: ^(((((19 20)([2468][048] [13579][26] 0[48]) 2000)-02-29 ((19 20)[0-9] {2}-(0[4678] 1[02])-(0[1-9] [12][0-9] 30) (19 20)[0-9]{2}-(0[1359] 11)-(0[1-9] [12] [0-9] 3[01]) (19 20)[0-9]{2}-02-(0[1-9] 1[0-9] 2[0-8])))_([01][0-9] 2[0-3]):([012345] [0-9]):([012345][0-9])) (((19 20)([2468][048] [13579][26] 0[48]) 2000)-02-29 ((19 20)[0-9]{2}-(0[4678] 1[02])-(0[1-9] [12][0-9] 30) (19 20)[0-9]{2}-(0[1359] 11)-(0[1-9] [12][0-9] 3[01]) (19 20)[0-9]{2}-02-(0[1-9] 1[0-9] 2[0-8]))))?\$	Data di fine, ex: 2022-10-15_16:12:00 or 2022-10-15
day	string 10 to 10 chars PATTERN: ^(((19 20)([2468][048] [13579][26] 0[48]) 2000)-02-29 ((19 20)[0-9] {2}-(0[4678] 1[02])-(0[1-9] [12][0-9] 30) (19 20)[0-9]{2}-(0[1359] 11)-(0[1-9] [12] [0-9] 3[01]) (19 20)[0-9]{2}-02-(0[1-9] 1[0-9] 2[0-8])))?\$	Giorno singolo, ex: 2022-10-15
type	string PATTERN: (html json)	
sort	string PATTERN: (asc desc)	

# **RESPONSE**

```
STATUS CODE - 200: Successful Response
  RESPONSE MODEL - application/json
undefined
STATUS CODE - 422: Validation Error
  RESPONSE MODEL - application/json
    detail [{
    Array of object:
       loc*
         ANY OF
         prop0
         string
         prop1
         integer
       msg* string
       type* string
    }]
  }
```

# 2.4 GET /resources/datas/last

**List Last Data** 

# **REQUEST**

# **QUERY PARAMETERS**

NAME	TYPE	DESCRIPTION
*dataid	array of string PATTERN: (itwork example CO altitude humidity ozone pressure temperature)	
type	string PATTERN: (htmljson)	

# **RESPONSE**

```
STATUS CODE - 200: Successful Response
  RESPONSE MODEL - application/json
undefined
STATUS CODE - 422: Validation Error
  RESPONSE MODEL - application/json
    detail [{
    Array of object:
       loc*
         ANY OF
         prop0
         string
         prop1
         integer
       msg* string
       type* string
    }]
  }
```

# 2.5 GET /resources/datas\_stream

#### **Datas Streams**

Questa funzione restituisce uno streaming dei dai che arrivano dai sensori

# **REQUEST**

No request parameters

# **RESPONSE**

STATUS CODE - 200: Successful Response

**RESPONSE MODEL - application/json** 

undefined