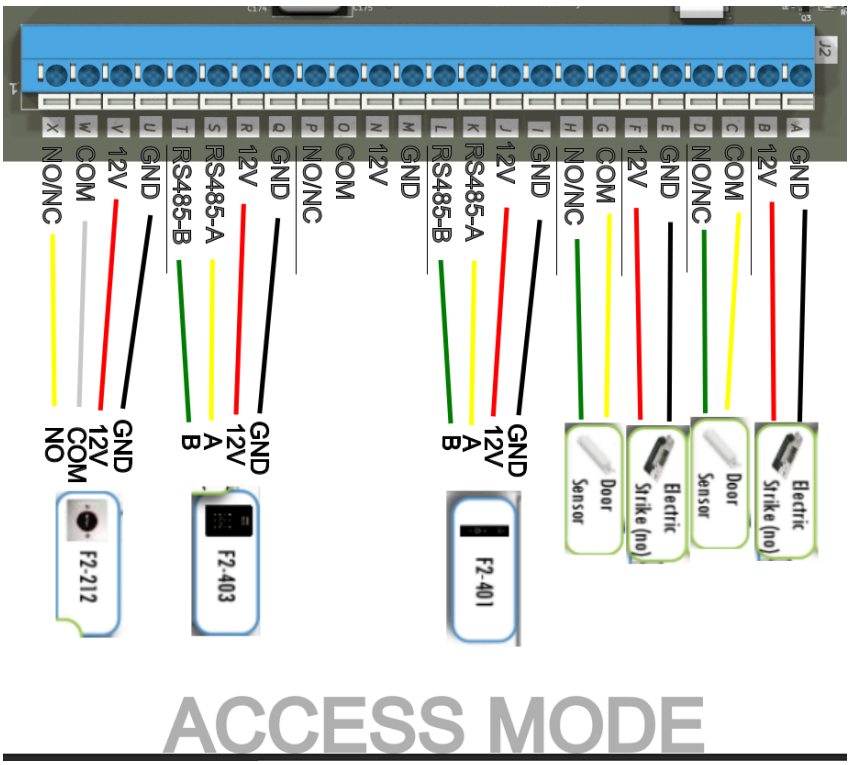
F2 Smart Controller MQTT Topics

Access Controller



Architecture:
https://app.cloudcraft.co/view/03b4c678-2261-4107-a719-e8989d524778?key=f57ed7a1-a5da-4ceb-9f4a-80a6ef9441e8

Electric Strike 1 and Electric Strike 2

- Subscribe
  Topic:

`cmnd/f2-<MAC_ADDR>/<MODE>/<CONNECTOR>/strike-<N>`

Description:
Command to control the door access controller.

Fields:
<MAC_ADDR> : MAC address of the F2 device(eth0 interface), in lowercase and without ":".
<MODE>: The mode of the connector in this case is access-control-mode.
<CONNECTOR>: The connector on the F2 board (J1, J2, J3 and J4).
<N>: The identifier of the electric strike hooked up in a connector. (1, or 2)

Payload:

```
{
  "power-flag": 2,
  "period": 3
}
```

power-flag:

- 2: Toggle for <period> seconds
- 1: Powered (12V)
- 0: No powered (0V)

period: Time in seconds.

None: Without payload return the current status in the **stat** topic.

Note:
All labels inside <> are considered variables.
The period max value is 255, but the max recommended value is 120 seconds.

Example:
cmnd/f2-e4fd45f654be/access-control-mode/J2/strike-1

- Publish
  Topic:
  `stat/f2-<MAC_ADDR>/<MODE>/<CONNECTOR>/strike-<N>`

  Description:
  Return the current status of the electric strike.

Fields:
<MAC_ADDR> : MAC address of the F2 device(eth0 interface), in lowercase and without ":".
<MODE>: The mode of the connector in this case is access-control-mode.
<CONNECTOR>: The connector on the F2 board (J1, J2, J3 and J4).
<N>: The identifier of the electric strike hooked up in a connector. (1, or 2)

Payload(JSON package):

```
{
  "timestamp": "2023-05-26 18:34:04.928538",
  "status": true/false
}
```

Door sensors

- Publish
  Topic:
  `stat/f2-<MAC_ADDR>/<MODE>/<CONNECTOR>/door-sensors`
  Description:
  Publish door sensor's status. Updates every time the status of the door sensors changes.

  Fields:
  <MAC_ADDR> : MAC address of the F2 device(eth0 interface), in lowercase and without ":".
  <MODE>: The mode of the connector in this case is access-control-mode.
  <CONNECTOR>: The connector on the F2 board (J1, J2, J3 and J4).

  Payload(JSON package):

```
{
  "timestamp": "2023-05-26 18:34:04.928538",
  "door-sensor-1": false,
  "door-sensor-2": true
}
```

  Note:
  All labels inside <> are considered variables.

Example:
stat/f2-e4fd45f654be/access-control-mode/J2/door-sensors

QR code and NFC reader

- Subscribe
  Topic:
  `cmnd/f2-<MAC_ADDR>/<MODE>/<CONNECTOR>/reader-<N>/success`
  Description:
  Command to activate the light indicators of the reader. It is feedback to the user

  Fields
  <MAC_ADDR> : MAC address of the F2 device(eth0 interface), in lowercase and without ":".
  <MODE>: The mode of the connector in this case is access-control-mode.
  <CONNECTOR>: The connector on the F2 board (J1, J2, J3 and J4).
  <N>: The identifier of the reader hooked up (1 or 2)

  Payload:

  ```
  1 -> Success
  2 -> Fail 1
  3 -> Fail 2
  ```

  Note:
  All labels inside <> are considered variables.

  Example:
  cmnd/f2-e4fd45f654be/access-control-mode/J2/reader-1/success

- Publish
  Topic:
  `tele/f2-<MAC_ADDR>/<MODE>/<CONNECTOR>/reader-<N>`

  Description:
  Publish the string data of the QR code or NFC token. The maximum number of characters is 1023 per string.

  Fields:
  <MAC_ADDR>: MAC address of the F2 device(eth0 interface), in lowercase and without ":".
  <MODE>: The mode of the connector in this case is access-control-mode.

<CONNECTOR>: The connector on the F2 board (J1, J2, J3 and J4).
<N>: The identifier of the reader hooked up (1 or 2)

Payload(JSON package):

```
{
  "timestamp": "2023-05-26 17:24:28.808888",
  "data": "b'\"Hello World\"'"
}
```

Note:
All labels inside <> are considered variables.

Example:
tele/f2-e4fd45f654be/access-control-mode/J2/reader-1

Obs.
In this topic, we also receive the response to the request to turn on the light indicator of the reader. (We handle this response in lambda functions)
Payload:

```
{
  "timestamp": "2023-05-26 17:20:52.115179",
  "data": "b'\\x02\\x02\\x01\\x00\\x00\\x00\\x03\\x03'"
}
```

Exit buttons

- Publish
  Topic:
  stat/f2-<MAC_ADDR>/<MODE>/<CONNECTOR>/exit-buttons

  Description:
  Publish a JSON package with the status of both sensors each time the button is pressed. Updates every time the status of the exit button changes.

  Payload(JSON package):

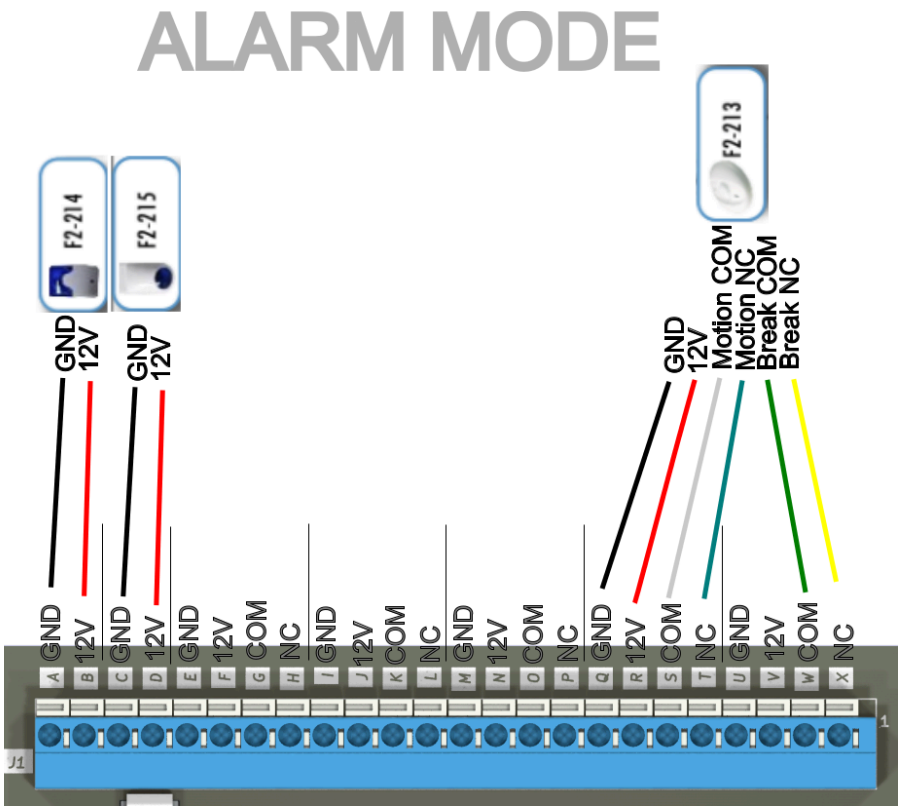
```
{
  "timestamp": "2023-05-26 17:17:09.127331",
  "exit-button-1": false,
  "exit-button-2": false
}
```

Note:
All labels inside <> are considered variables.

Example:
stat/f2-e4fd45f654be/access-control-mode/J2/exit-buttons

Obs:
It should be a ***tele*** topic but for practical purposes, we are considering it as a stat topic.

Alarm Mode



Architecture:
https://app.cloudcraft.co/view/589cd639-3073-41e1-abd3-1bf996011036?key=37761e57-0035-4c21-8057-f6c64c3b42a2

Sirens

- Subscribe
  Topic:
  `cmnd/f2-<MAC_ADDR>/<MODE>/<CONNECTOR>/siren-<N>`

Description:
Command to control sirens (turn on/off) or request the status of the siren in case the payload is null.

Fields:
<MAC_ADDR>: MAC address of the F2 device(eth0 interface), in lowercase and without ":".
<MODE>: In this case, the connector's mode is alarm-mode.
<CONNECTOR>: The connector on the F2 board (J1, J2, J3 and J4).
<N>: The identifier of the siren hooked up in a connector. (1, or 2)

Payload:

```
1 -> Powered (12V)
0 -> No powered (0V)
None - > Return the current status in the published topic.
```

Note:
All labels inside <> are considered variables.

Example:
cmnd/f2-e4fd45f654be/alarm-mode/J1/siren-1

- Publish
  Topic:
  stat/f2-<MAC_ADDR>/<MODE>/<CONNECTOR>/siren-<N>

  Description:
  Return the current status of a siren.

  Fields:
  <MAC_ADDR>: MAC address of the F2 device(eth0 interface), in lowercase and without ":".
  <MODE>: In this case, the connector's mode is alarm-mode.
  <CONNECTOR>: The connector on the F2 board (J1, J2, J3 and J4).
  <N>: The identifier of the siren hooked up in a connector. (1, or 2)

  Payload:

```
{
  "timestamp": "2023-05-26 18:34:04.928538",
  "status": false
```

```
}
```

Note:
All labels inside <> are considered variables.
Active only per request.

Example:
stat/f2-e4fd45f654be/alarm-mode/J1/siren-1

Motion Sensors

- Publish
  `stat/f2-<MAC_ADDR>/<MODE>/<CONNECTOR>/motion-sensor-<N>`

  Description:
  Return the status of a motion sensor. Updates every time the status of the sensors changes (It means, every time a person is detected).

  Fields:
  <MAC_ADDR>: MAC address of the F2 device(eth0 interface), in lowercase and without ":".
  <MODE>: In this case, the connector's mode is alarm-mode.
  <CONNECTOR>: The connector on the F2 board (J1, J2, J3 and J4).
  <N>: ID of the sensor (motion, glass break, etc.) hooked up to the connector(1, 2, 3, 4, and 5).

  Payload (JSON package):

```
{
 "timestamp": "2023-05-26 18:34:04.928538",
 "status": true/false
}
```

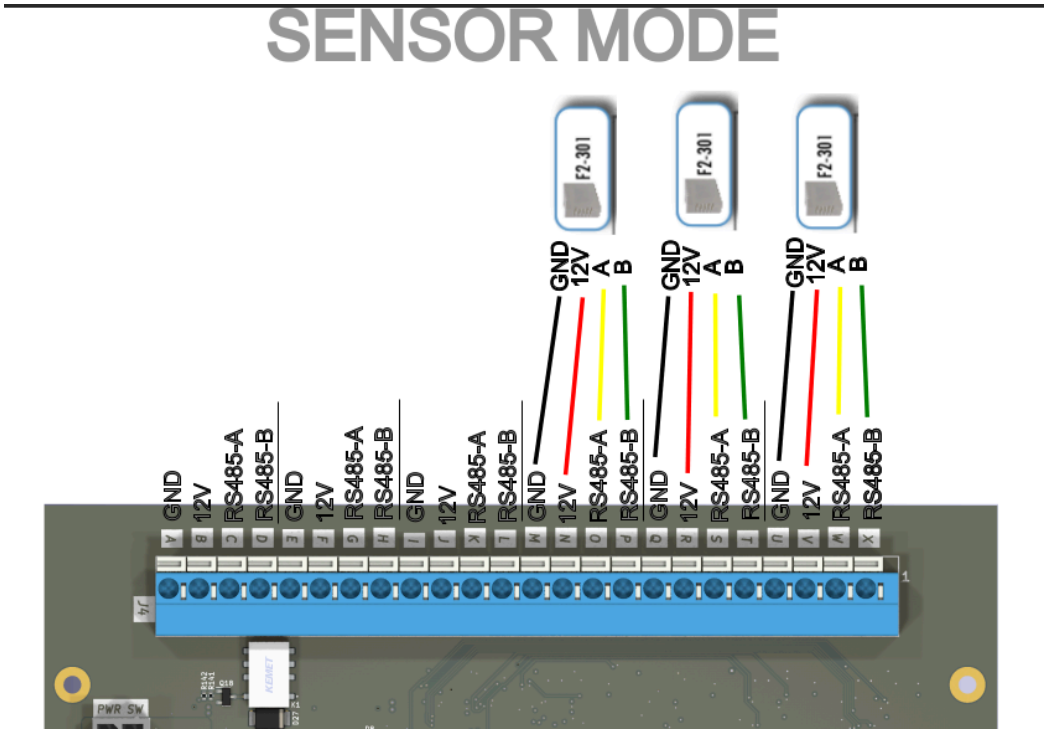
  Note:
  All labels inside <> are considered variables.
  Publish only when the status change.

  Example:
  stat/f2-e4fd45f654be/alarm-mode/J1/motion-sensor-1

Sensor Mode

Note: Architecture is not defined.

RS-485 sensors



Architecture:
https://app.cloudcraft.co/view/eb8cd742-f505-4c28-8e5d-3fcfe75168a0?key=a3c428e8-c183-499c-ac4f-71c0ed8475c1

- Publish
  Topic:
  `tele/f2-<MAC_ADDR>/<MODE>/<CONNECTOR>/sensor-<N>`

  Description:
  Publish raw sensor data(hex) periodically (every 30 seconds, not configurable).

  Fields:
  <MAC_ADDR>: MAC address of the F2 device(eth0 interface), in lowercase and without ":".
  <MODE>: In this case, the connector's mode is sensor-mode.
  <CONNECTOR>: The connector on the F2 board (J1, J2, J3 and J4).
  <N>: ID of the RS-485 sensor hooked up to the connector(1, …, 6).

Payload (JSON package):

```
{
  "timestamp": "2023-05-25 15:13:10.543400",
  "data": <hex value>
}
```

Note:
All labels inside <> are considered variables.

Example:
`tele/f2-e4fd45f654be/sensor-mode/J4/sensor-3`

BLE Beacon Sensors