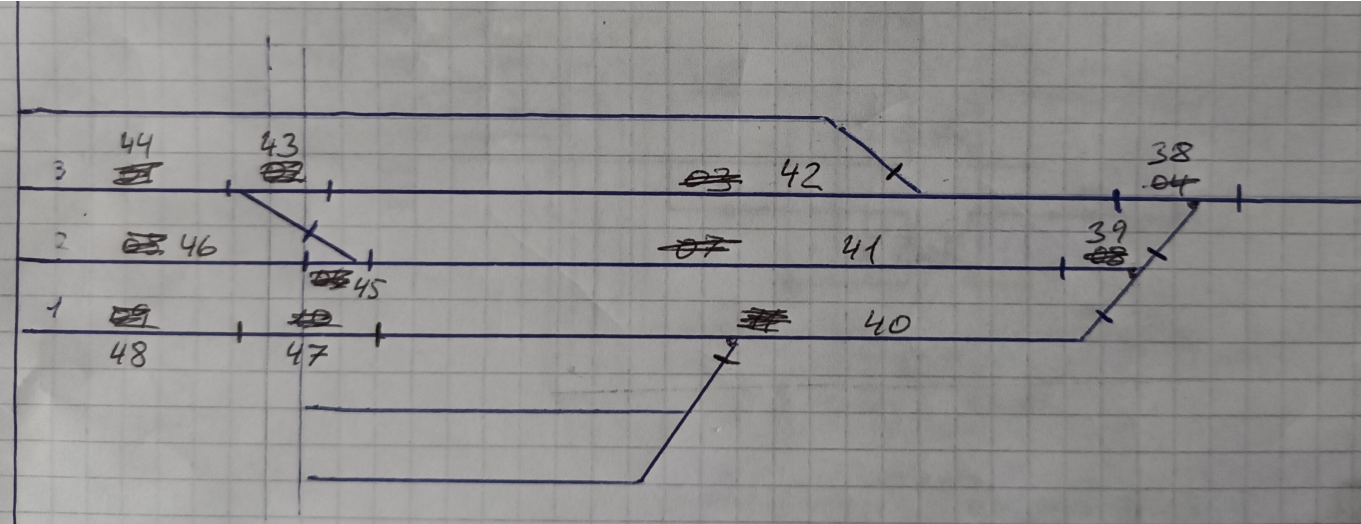


# Programering af Fredericia Station

## ESPHome Firmware for Frederica

- Se ESPHome for ESP32 Firmware:
  - [/fa-spibg\\_0.yaml](#)
    - [./Includes/Fa/Fa-Spibd/.pcf8574\\_ids\\_fa.yaml](#)
    - [./Includes/Fa/Fa-Spibd/.pcf8574\\_input\\_fa.yaml](#)
  - [/fa-cap-spil\\_0.yaml](#)
    - [./Includes/Cap/Fa/Fa-Cap-SpIL\\_0/.pca9685\\_ids\\_cap\\_fa.yaml](#)
    - [./Includes/Cap/Fa/Fa-SpIL\\_0/.pca9685\\_light\\_cap\\_fa.yaml](#)
    - [./Includes/Cap/Fa/Fa-Cap-SpIL\\_0/.pca9685\\_output\\_cap\\_fa.yaml](#)

## Fredericia Spor Isolations



### SporIsolations BlockDetection --> Entity\_id

SporIsolation	Name	Entity_id	Komentar
38	Fredericia-Block-Detection		
39	Fredericia-Block-Detection		
40	Fredericia-Block-Detection		Spor1
41	Fredericia-Block-Detection 07	binary_sensor.fa-spibd_007	Spor2
42	Fredericia-Block-Detection		Spor3
43	Fredericia-Block-Detection 03	binary_sensor.fa-spibd_003	Spor3 Grøn Led
44	Fredericia-Block-Detection 04	binary_sensor.fa-spibd_004	Spor3 Rød Led
45	Fredericia-Block-Detection 05	binary_sensor.fa-spibd_005	Spor2 Grøn Led
46	Fredericia-Block-Detection 02	binary_sensor.fa-spibd_002	Spor2 Rød Led

SporIsolation	Name	Entity_id	Komentar
47	Fredericia-Block-Detection 01	binary_sensor.fa-spibd_001	Spor1 Grøn Led
48	Fredericia-Block-Detection 00	binary_sensor.fa-spibd_000	Spor1 Rød Led

Cap-Fredericia-SporIsolation Light --> Entity\_id

Name	Light.Entity_id	Komentar
Cap-Fa-Spil-43	light.cap_fa_spil_001	Fa-Spor3 Grøn
Cap-Fa-Spil-44	light.cap_fa_spil_000	Fa-Spor3 Rød
Cap-Fa-Spil-45	light.cap_fa_spil_003	Fa-Spor2 Grøn
Cap-Fa-Spil-46	light.cap_fa_spil_002	Fa-Spor2 Rød
Cap-Fa-Spil-47	light.cap_fa_spil_005	Fa-Spor1 Grøn
Cap-Fa-Spil-48	light.cap_fa_spil_004	Fa-Spor1 Rød

Frederica SporIsolation LightGroup --> Entity\_id

Group

Name	Entity_id	Komentar
Fa-Spilg-43	light.fa_spilg_43	Fa-Spor3 Grøn
Fa-Spilg-44	light.fa_spilg_44	Fa-Spor3 Rød
Fa-Spilg-45	light.fa_spilg_45	Fa-Spor2 Grøn
Fa-Spilg-46	light.fa_spilg_46	Fa-Spor2 Rød
Fa-Spilg-47	light.fa_spilg_47	Fa-Spor1 Grøn
Fa-Spilg-48	light.fa_spilg_48	Fa-Spor1 Rød

Group Options Members

Group	Members Name	Members Entity_id	Komentar
Fa-Spilg-43	Cap-Fa-Spil-43	light.cap_fa_001	Fa-Spor3 Grøn
		light.xx	
Fa-Spilg-44	Cap-Fa-Spil-44	light.cap_fa_000	Fa-Spor3 Rød
		light.xx	
Fa-Spilg-45	Cap-Fa-Spil-45	light.cap_fa_003	Fa-Spor2 Grøn
		light.xx	
Fa-Spilg-46	Cap-Fa-Spil-46	light.cap_fa_002	Fa-Spor2 Rød

Group	Members Name	Members Entity_id	Komentar
light.xx			
Fa-Spilg-47	Cap-Fa-SpiL-47	light.cap_fa_005	Fa-Spor1 Grøn
light.xx			
Fa-Spilg-48	Cap-Fa-SpiL-48	light.cap_fa_004	Fa-Spor1 Rød
light.xx			

## Automation Fa Block Detection (YAML)

Kilde: [YAML Style Guide](#)

### Alias & Description

```
alias: Fa-BD
description: Markering af hvornår toget når til enden af sporet.
```

### When (Trigger)

#### Trigger

```
trigger:
```

#### Trigger Spor1

```
- alias: Fa Spor1 SPI47 ændret til besat
  entity_id:
    - binary_sensor.fa_spibd_0_01
  to: "on"
  for:
    hours: 0
    minutes: 0
    seconds: 0
  id: fa-spor1-grøn-on
  trigger: state
- alias: Fa Spor1 SPI47 ændret til fri
  entity_id:
    - binary_sensor.fa_spibd_0_01
  to: "off"
  for:
    hours: 0
    minutes: 0
    seconds: 0
  id: fa-spor1-grøn-off
```

```
trigger: state
- alias: FA Spor1 SPI48 ændret til besat
  entity_id:
    - binary_sensor.fa_spibd_0_00
  to: "on"
  for:
    hours: 0
    minutes: 0
    seconds: 0
  id: fa-spor1-rød-on
  trigger: state
- alias: Fa Spor1 SPI48 ændret til fri
  entity_id:
    - binary_sensor.fa_spibd_0_00
  to: "off"
  for:
    hours: 0
    minutes: 0
    seconds: 0
  id: fa-spor1-rød-off
  trigger: state
```

## Trigger Spor2

```
- alias: Fa Spor2 SPI45 ændret til besat
  entity_id:
    - binary_sensor.fa_spibd_0_05
  to: "on"
  for:
    hours: 0
    minutes: 0
    seconds: 0
  id: fa-spor2-grøn-on
  trigger: state
- alias: Fa Spor2 SPI45 ændret til fri
  entity_id:
    - binary_sensor.fa_spibd_0_05
  to: "off"
  for:
    hours: 0
    minutes: 0
    seconds: 0
  id: fa-spor2-grøn-off
  trigger: state
- alias: Fa Spor2 SPI46 ændret til besat
  entity_id:
    - binary_sensor.fa_spibd_0_02
  to: "on"
  for:
    hours: 0
    minutes: 0
```

```
    seconds: 0
    id: fa-spor2-rød-on
    trigger: state
- alias: Fa Spor2 SPI46 ændret til fri
  entity_id:
    - binary_sensor.fa_spibd_0_02
  to: "off"
  for:
    hours: 0
    minutes: 0
    seconds: 0
  id: fa-spor2-rød-off
  trigger: state
```

### Trigger Spor3

```
- alias: Fa Spor3 SPI43 ændret til besat
  entity_id:
    - binary_sensor.fa_spibd_0_03
  to: "on"
  for:
    hours: 0
    minutes: 0
    seconds: 0
  id: fa-spor3-grøn-on
  trigger: state
- alias: Fa Spor3 SPI43 ændret til fri
  entity_id:
    - binary_sensor.fa_spibd_0_03
  to: "off"
  for:
    hours: 0
    minutes: 0
    seconds: 0
  id: fa-spor3-grøn-off
  trigger: state
- alias: Fa Spor3 SPI44 ændret til besat
  entity_id:
    - binary_sensor.fa_spibd_0_04
  to: "on"
  for:
    hours: 0
    minutes: 0
    seconds: 0
  id: fa-spor3-rød-on
  trigger: state
- alias: Fa Spor3 SPI44 ændret til fri
  entity_id:
    - binary_sensor.fa_spibd_0_04
  to: "off"
  for:
```

```
hours: 0
minutes: 0
seconds: 0
id: fa-spor3-rød-off
trigger: state
```

And if

```
condition:
```

Then to

**action & choose**

```
actions:
  - choose:
```

**Spor1**

```
- conditions:
  - alias: Når Fa Spor1 SPI47 ændret til besat
    condition: trigger
    id:
      - fa-spor1-grøn-on
  sequence:
    - action: light.turn_on
      metadata: {}
      data:
        brightness_pct: 40
      target:
        entity_id: light.fa_spilg_47
- conditions:
  - condition: trigger
    id:
      - fa-spor1-grøn-off
    alias: Når Fa Spor1 SPI47 ændret til fri
  sequence:
    - action: light.turn_off
      metadata: {}
      data: {}
      target:
        entity_id: light.fa_spilg_47
- conditions:
  - alias: Når FA Spor1 SPI48 ændret til besat
    condition: trigger
    id:
```

```
    - fa-spor1-rød-on
sequence:
  - action: light.turn_on
    metadata: {}
    data:
      brightness_pct: 40
    target:
      entity_id: light.fa_spilg_48
  - action: light.turn_off
    metadata: {}
    data: {}
    target:
      entity_id: light.fa_spilg_47
- conditions:
  - condition: trigger
    id:
      - fa-spor1-rød-off
    alias: Når Fa Spor1 SPI48 ændret til fri
sequence:
  - action: light.turn_off
    metadata: {}
    data: {}
    target:
      entity_id: light.fa_spilg_48
  - action: light.turn_on
    metadata: {}
    data:
      brightness_pct: 40
    target:
      entity_id: light.fa_spilg_47
```

## Spor2

```
- conditions:
  - alias: Når Fa Spor2 SPI45 ændret til besat
    condition: trigger
    id:
      - fa-spor2-grøn-on
sequence:
  - action: light.turn_on
    metadata: {}
    data:
      brightness_pct: 40
    target:
      entity_id: light.fa_spilg_45
- conditions:
  - alias: Når Fa Spor2 SPI45 ændret til fri
    condition: trigger
    id:
      - fa-spor2-grøn-off
sequence:
```

```
- action: light.turn_off
  metadata: {}
  data: {}
  target:
    entity_id: light.fa_spilg_45
- conditions:
  - alias: Når FA Spor2 SPI46 ændret til besat
    condition: trigger
    id:
      - fa-spor2-rød-on
sequence:
  - action: light.turn_on
    metadata: {}
    data:
      brightness_pct: 40
    target:
      entity_id: light.fa_spilg_46
  - action: light.turn_off
    metadata: {}
    data: {}
    target:
      entity_id: light.fa_spilg_45
- conditions:
  - alias: Når Fa Spor2 SPI46 ændret til fri
    condition: trigger
    id:
      - fa-spor2-rød-off
sequence:
  - action: light.turn_off
    metadata: {}
    data: {}
    target:
      entity_id: light.fa_spilg_46
  - action: light.turn_on
    metadata: {}
    data:
      brightness_pct: 40
    target:
      entity_id: light.fa_spilg_45
```

### Spor3

```
- conditions:
  - alias: Når Fa Spor3 SPI43 ændret til besat
    condition: trigger
    id:
      - fa-spor3-grøn-on
sequence:
  - action: light.turn_on
    metadata: {}
    data:
```



```
        brightness_pct: 40
        target:
          entity_id: light.fa_spilg_43
- conditions:
  - alias: Når Fa Spor3 SPI43 ændret til fri
    condition: trigger
    id:
      - fa-spor3-grøn-off
  sequence:
    - action: light.turn_off
      metadata: {}
      data: {}
      target:
        entity_id: light.fa_spilg_43
- conditions:
  - alias: Når FA Spor3 SPI44 ændret til besat
    condition: trigger
    id:
      - fa-spor3-rød-on
  sequence:
    - action: light.turn_on
      metadata: {}
      data:
        brightness_pct: 40
      target:
        entity_id: light.fa_spilg_44
    - action: light.turn_off
      metadata: {}
      data: {}
      target:
        entity_id: light.fa_spilg_43
- conditions:
  - alias: Når Fa Spor3 SPI44 ændret til fri
    condition: trigger
    id:
      - fa-spor3-rød-off
  sequence:
    - action: light.turn_off
      metadata: {}
      data: {}
      target:
        entity_id: light.fa_spilg_44
    - action: light.turn_on
      metadata: {}
      data:
        brightness_pct: 40
      target:
        entity_id: light.fa_spilg_43
```

### Mode

```
mode: queued  
max: 12
```