

Project Documentation

File: Hardware_Super_Truck.project

Date: 14/06/2020

Profile: CODESYS V3.5 SP14

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1 Device: Device

Users and Groups

Users:

Groups:

Access Rights

View

Modify

Execute

Add/remove children

Symbol Rights

Information

Name: CODESYS Control for Raspberry Pi MC SL
Vendor: 3S - Smart Software Solutions GmbH
Groups: SoftMotion PLCs
Type: 4102
ID: 0000 0011
Version: 3.5.14.0
Order number: ???
Description: CODESYS Control for Raspberry Pi MC. Supports Raspberry Pi 2 and above and MultiCore capabilities.

1.1 Plc Logic: Plc Logic

1.1.1 Application: Application

1.1.1.1 POU: PLC_PRG

```
1  PROGRAM PLC_PRG
2  VAR
3      Acionamento_Pedaleira      : BOOL ;
4      Padrao_Pedaleira           : INT := 4 ;
5      Tempo_Pedaleira            : TIME := T#8000MS ;
6      Contador_Acionamento       : INT ;
7
8      Registrar                  : R_TRIG ;
9      Temporizador               : TON ;
10     Broker                     : MQTT_Client . FB_MQTTClient
11     := ( i_xEnable              := TRUE ,
12         i_sBrokerAddress        := 'localhost' ,
13         i_uiPort                := 1010 ,
14         i_sTopicPublish         := 'Alertas' ,
15         i_xPublish              := FALSE ) ;
16 END_VAR
17
```

```
1  Registrar ( CLK := Acionamento_Pedaleira ) ;
2  Broker ( i_xSubscribe := TRUE ) ;
3
4  IF Registrar.Q
5      THEN Contador_Acionamento := Contador_Acionamento + 1 ;
6  END_IF
7
8  Temporizador ( IN := TRUE , PT := Tempo_Pedaleira ) ;
9  IF Temporizador.Q
10     THEN Temporizador ( IN := FALSE ) ;
11         Contador_Acionamento := 0 ;
12 END_IF
13
14 WHILE Contador_Acionamento >= Padrao_Pedaleira
15     DO Broker ( i_sPayload := 'Perigo' , i_xPublish := TRUE ,
16         i_xSubscribe := FALSE ) ;
17         Broker ( i_xPublish := FALSE ) ;
18         Broker ( i_sPayload := 'Contato_1' , i_xPublish := TRUE ,
19             i_xSubscribe := FALSE ) ;
20         Broker ( i_xPublish := FALSE ) ;
21         Broker ( i_sPayload := 'Contato_2' , i_xPublish := TRUE ,
22             i_xSubscribe := FALSE ) ;
23         Broker ( i_xPublish := FALSE ) ;
24         Contador_Acionamento := 0 ;
25 END_WHILE
```

1.1.1.2 Task Configuration: Task Configuration

Max. number of tasks: 100
Max. number of cyclic tasks: 100
Max. number of freewheeling tasks: 100
Max. number of event tasks: 100
Max. number of status tasks: 100

System Events:

1.1.1.2.1 Task: MainTask

Priority: 1
Type: Cyclic
Interval: 4 Unit: ms
Watchdog: Inactive
POUs: PLC_PRG

1.1.1.2.1.1 Program call: PLC_PRG

1.2 : GPIOs_A_B

GPIOs Parameters

Parameters:

Name:	Type:	Value:	Defaultvalue:	Unit:	Description:
GPIO4	BYTE	255	255		configuration of GPIO4
GPIO17	BYTE	255	255		configuration of GPIO17
GPIO18	BYTE	255	255		configuration of GPIO18
GPIO22	BYTE	255	255		configuration of GPIO22
GPIO23	BYTE	255	255		configuration of GPIO23
GPIO24	BYTE	255	255		configuration of GPIO24
GPIO25	BYTE	255	255		configuration of GPIO25
GPIO27	BYTE	255	255		configuration of GPIO27
GPIO28	BYTE	255	255		configuration of GPIO28
GPIO29	BYTE	255	255		configuration of GPIO29
GPIO30	BYTE	255	255		configuration of GPIO30
GPIO31	BYTE	255	255		configuration of GPIO31

GPIOs I/O Mapping

IEC objects:

Variable:	Type:
GPIOs_Instance	IoDrvGPIO

Information

Name: GPIOs A/B
Vendor: 3S - Smart Software Solutions GmbH
Groups:
Type: 504
ID: 0000 0000
Version: 3.5.11.0
Order number: -
Description: Raspberry GPIOs of model A/B rev. 2