

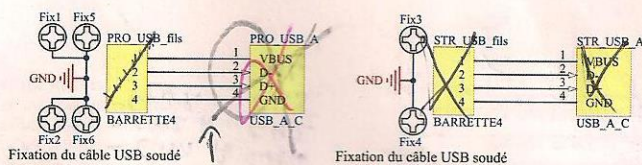
e Panier

2017

cteurs UART ???

Rouge - Vcc
Blanc - D-
Vert - D+
Noir - GND

USB



+ le volant

sur le PCB)

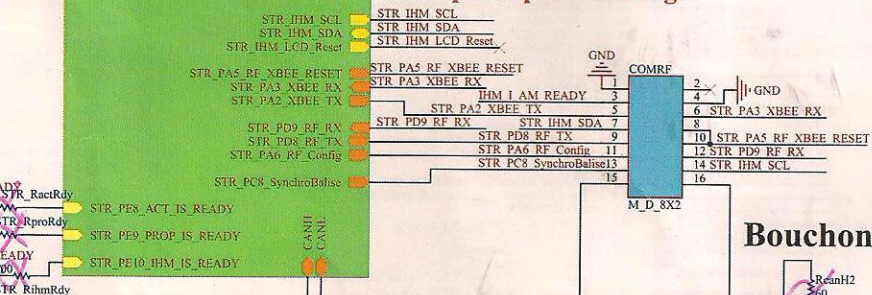
Bluetooth
de besoin

STR_UIRX
STR_UITX
Tx

Strategie

2017_FDP_STRATEGIE.SchDoc

LCD piloté par la stratégie

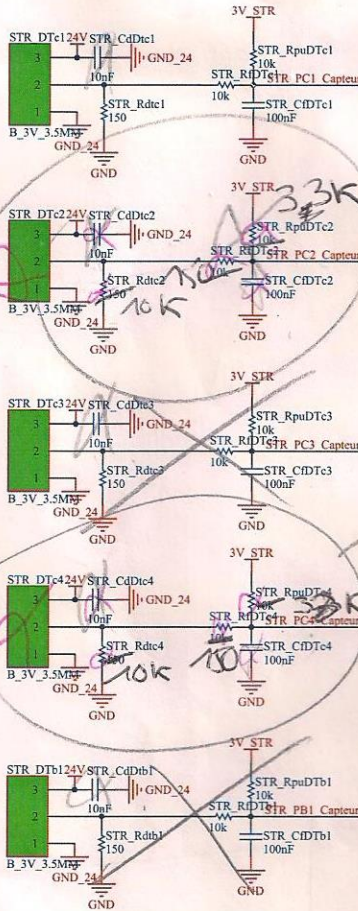


Bouchon CAN

Title *
Size: A3 Number: * Revision: *
Date: 24/02/2017 Time: 15:33:42 Sheet * of *
File: M:\Robot\ SVN_new\ Hard\2017 FDP\2017_FDP_SCHEMA.SchDoc

Altium

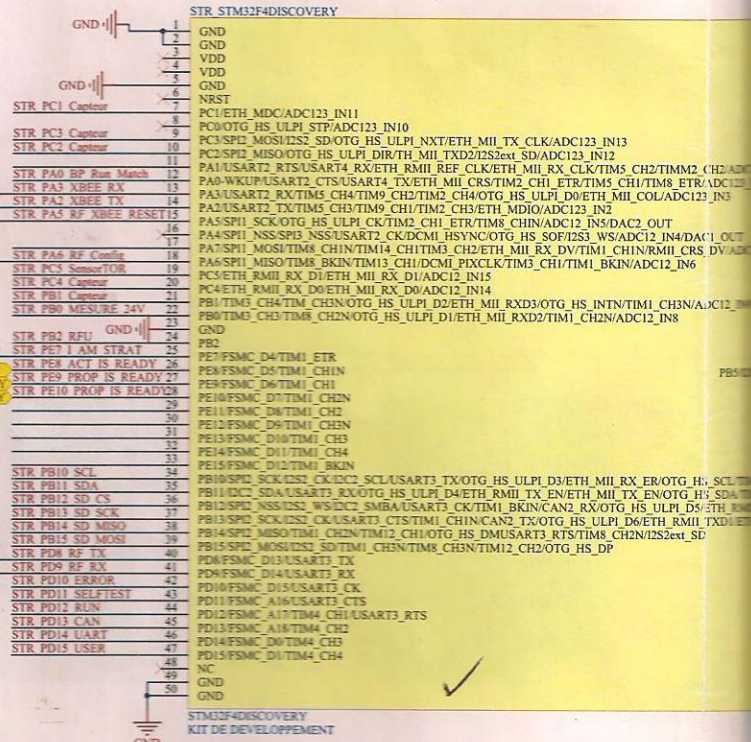
Capteurs



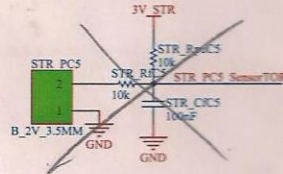
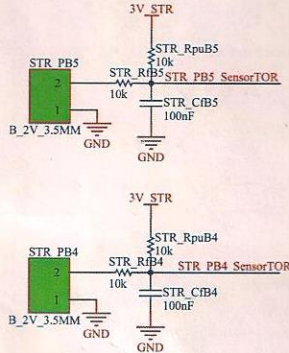
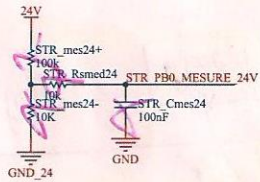
PIG & Small
CAPACITOR
left AR

BIG ONLY
CAPA
RIGHT AR

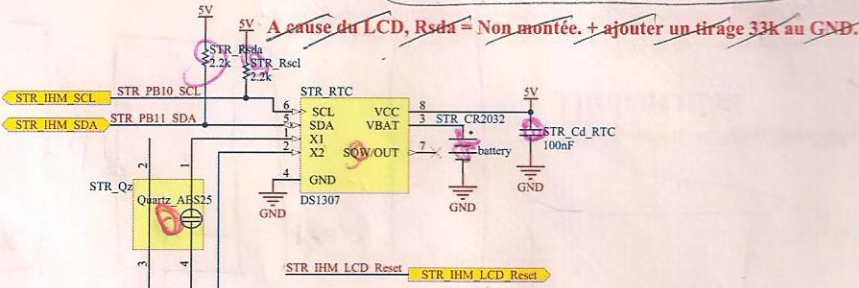
STRAT



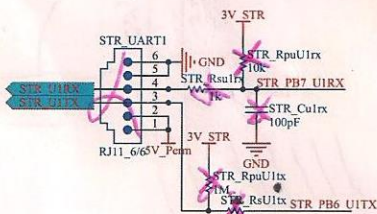
Mesure 24V



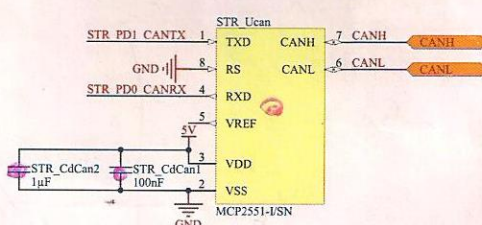
Horloge Temps Réel



UART1



CAN



green
yellow
grey

CH1 L =
CH2 L =
CH3 L =

M9mm

24V
3 pins
3.5mm

STRATEGIE

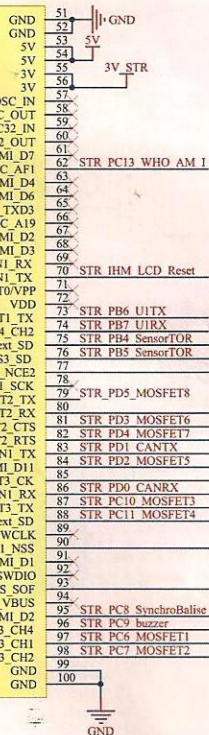
H2/ADC123_IN1
DC123_IN0/WKUP
IN3

L_OUT
DV/ADC12_IN7

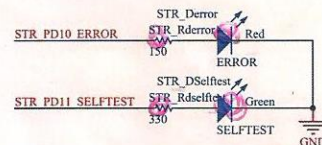
IC12_IN9

PB6/I2C1_SCL/TIM4_CH1/CAN2_TX/OTG_FS_INTN/DCMI_D5/USART1_TX
PB7/I2C1_SDA/FSMC_ML/DCMI_VSYNC/USART1_RX/TIM4_CH2
PB4/NTRST/SP13_MISO/TIM3_CH1/SP11_MISO/I2S3ext_SD
PB5/I2C1_SMB/AN2_RX/OTG_HS_ULPI_D7/ETH_PPS_OUT/TIM3_CH2/SP11_MOSI/SP13_MOSI/DCMI_D10/I2S3_SD
PD7/USART2_CK/FSMC_NEI/FSMC_NCE2
PB3/JTDO/TRACESWO/SP13_SCK/I2S3_CK/TIM2_CH2/SP11_SCK
PD5/FSMC_NWE/USART2_TX
PD6/FSMC_NWAIT/USART2_RX
PD3/FSMC_CLK/USART2_CTS
PD4/FSMC_NOE/USART2_RTS
PD1/FSMC_D3/CAN1_TX
PD2/TIM3_ETR/UART5_RX/SDIO_CMD/DCMI_D11
PC12/UART5_TX/SDIO_CK/DCMI_D9/SP13_MOSI/I2S3_SD/USART3_CK
PD0/FSMC_D2/CAN1_RX
PC10/SP13_SCK/I2S3_CK/UART4_TX/SDIO_D2/DCMI_D8/USART3_TX
PC11/UART4_RX/SP13_MISO/SDIO_D3/DCMI_D4/USART3_RX/I2S3ext_SD
PA14/JTCK_SWCLK
PA15/JTDO/SP13_NSS/I2S3_WS/TIM2_CH1_ETR/SP11_NSS
PA10/USART1_RX/TIM1_CH3/OTG_FS_ID/DCMI_D1
PA13/TMS_SWIDIO
PAR/MCO1/USART1_CK/TIM1_CH1/I2C3_SCL/OTG_FS_SOF
PA9/USART1_TX/TIM1_CH2/I2C3_SMB/DCMI_D0/OTG_FS_VBUS
PC8/TIM8_CH3/SDIO_D0/TIM3_CH3/USART6_CK/DCMI_D2
PC9/I2S3_CKIN/MCO2/TIM8_CH4/SDIO_D1/I2C3_SDA/DCMI_D9/TIM3_CH4
PC6/I2S2_MCK/TIM8_CH1/SDIO_D6/USART6_TX/DCMI_D0/TIM3_CH1
PC7/I2S3_MCK/TIM8_CH2/SDIO_D7/USART6_RX/DCMI_D1/TIM3_CH2

SCL/TIM2_CH3
SDA/TIM2_CH4
ETH_RMII_TXD0/ETH_MII_TXD0/OTG_HS_ID
TXD1/ETH_MII_TXD1/OTG_HS_VBUS



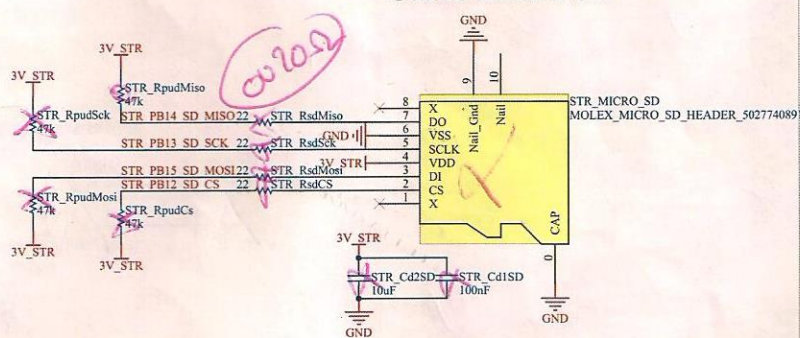
Leds



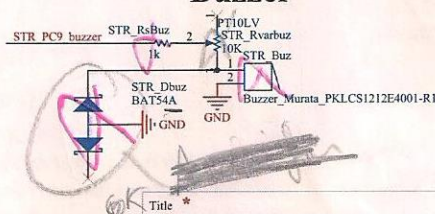
Tai tranzis :

2kV - Brown
GND - Blue
CH1 - Black
CH2 - white
CH3 - Gray
CH4 - Orange

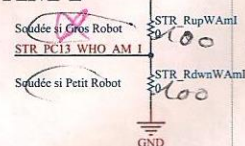
Carte micro SD



Buzzer



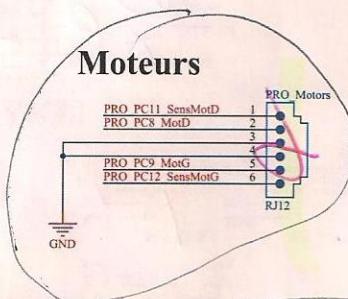
WHO AM I



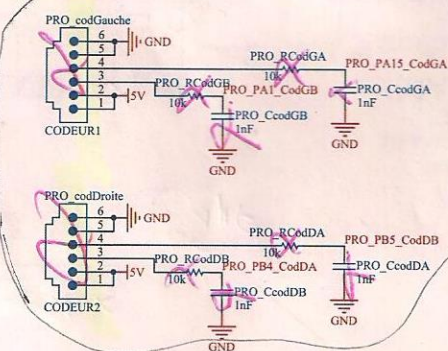
Title *
Size: A2 Number: * Revision: *
Date: 24/02/2017 Time: 15:33:42 Sheet * of *
File: M:\Robot\ SVN new\ Hard\2017 FDP\2017 FDP_STRATEGIE.SchDoc

Altium

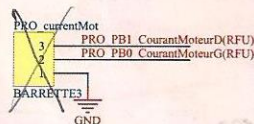
Moteurs



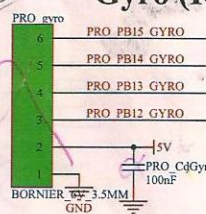
Codeurs



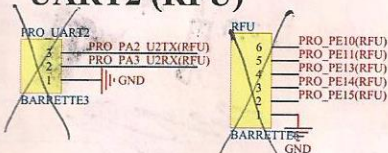
Courant moteur (RFU)



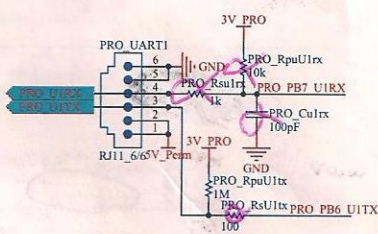
Gyro (RFU)



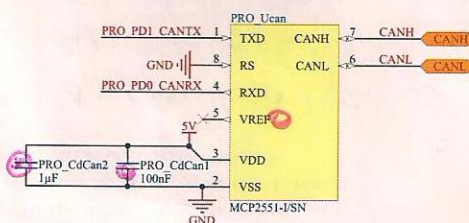
UART2 (RFU)



UART1



CAN



PRO STM32F4DISCOVERY	1	GND
	2	GND
	3	VDD
	4	VDD
	5	GND
	6	NRST
PRO PC1 Capteur	7	PC1 ETH_MDC/ADC123_IN11
PRO PC3 Capteur	8	PC0/OTG_HS_ULPI_STP/ADC123_IN10
PRO PC2 Capteur	9	PC3/SP12_MOSI/I2S2_SD/OTG_HS_ULPI_NXT/ETH_MII_TX_CLK/ADC123_IN13
PRO PA1 CodGB	10	PC2/SP12_MISO/OTG_HS_ULPI_DIR/TH_MII_TXD2/I2S2ext_SD/ADC123_IN12
PRO PA3 U2RX(RFU)	11	PA1/USART2_RTS/USART4_RX/ETH_RMII_REF_CLK/ETH_MII_RX_CLK/TIM5_CH2/TIM2_CH2/ADC123_IN11
PRO PA2 U2TX(RFU)	12	PA3/USART2_RX/TIM5_CH4/TIM9_CH2/TIM2_CH4/OTG_HS_ULPI_D0/ETH_MII_COL/ADC123_IN3
	13	PA2/USART2_TX/TIM5_CH3/TIM9_CH1/TIM2_CH3/ETH_MDIO/ADC123_IN2
	14	PA5/SP11_SCK/OTG_HS_ULPI_CK/TIM2_CH1_ETR/TIM8_CH1N/ADC12_IN5/DAC2_OUT
	15	PA4/SP11_NSS/SP13_NSS/USART2_CK/DCMI_HSYNC/OTG_HS_SOF/I2S3_WS/ADC12_IN4/DAC1_OUT
	16	PA7/SP11_MOSI/TIM8_CH1N/TIM14_CH1TIM3_CH2/ETH_MII_RX_DV/TIM1_CH1N/RMII_CRS_DV/ADC12_IN7
	17	PA6/SP11_MISO/TIM8_BKIN/TIM13_CH1/DCMI_PIXCLK/TIM3_CH1/TIM1_BKIN/ADC12_IN6
	18	PC5/ETH_RMII_RX_D1/ETH_MII_RX_D1/ADC12_IN15
PRO PC4 Capteur	19	PC4/ETH_RMII_RX_D0/ETH_MII_RX_D0/ADC12_IN14
PRO PB1 CourantMoteur(DRFU)	20	PC4/ETH_RMII_RX_D0/ETH_MII_RX_D0/ADC12_IN14
PRO PB0 CourantMoteur(G(RFU))	21	PB0/TIM3_CH4/TIM3_CH3N/OTG_HS_ULPI_D2/ETH_MII_RXD3/OTG_HS_INTN/TIM1_CH3N/ADC12_IN9
	22	PB0/TIM3_CH3/TIM8_CH2N/OTG_HS_ULPI_D1/ETH_MII_RXD2/TIM1_CH2N/ADC12_IN8
	23	GND
	24	PB2
	25	PE7/FSMC_D4/TIM1_ETR
	26	PE8/FSMC_D5/TIM1_CH1N
PRO PE9 1 AM PROP	27	PE9/FSMC_D6/TIM1_CH1
PRO PE10(RFU)	28	PE10/FSMC_D7/TIM1_CH2N
PRO PE11(RFU)	29	PE11/FSMC_D8/TIM1_CH2
PRO PE12 CALIBRATION	30	PE12/FSMC_D9/TIM1_CH3N
PRO PE13(RFU)	31	PE13/FSMC_D10/TIM1_CH3
PRO PE14(RFU)	32	PE14/FSMC_D11/TIM1_CH4
PRO PE15(RFU)	33	PE15/FSMC_D12/TIM1_BKIN
	34	PB10/SP12_SCK/I2S2_CK/I2C2_SCL/USART3_TX/OTG_HS_ULPI_D3/ETH_MII_RX_ER/OTG_HS_SCL/TIM4_CH3
PRO PB12 GYRO	35	PB11/I2C2_SDA/USART3_RX/OTG_HS_ULPI_D4/ETH_RMII_TX_EN/ETH_MII_TX_EN/OTG_HS_SDA/TIM2_CH4
PRO PB13 GYRO	36	PB12/SP12_NSS/I2S2_WS/I2C2_SMB/USART3_CK/TIM1_BKIN/CAN2_RX/OTG_HS_ULPI_D5/ETH_RMII_TXD0/ETH_MII_TXD1
PRO PB14 GYRO	37	PB13/SP12_MISO/TIM1_CH2N/TIM12_CH1/OTG_HS_DMUSART3_RTS/TIM8_CH2N/I2S2ext_SD
PRO PB15 GYRO	38	PB14/SP12_MISO/TIM1_CH2N/TIM12_CH1/OTG_HS_DMUSART3_RTS/TIM8_CH2N/I2S2ext_SD
	39	PB15/SP12_MOSI/I2S2_SD/TIM1_CH3N/TIM8_CH3N/TIM12_CH2/OTG_HS_DP
	40	PD8/FSMC_D13/USART3_TX
PRO PD10 ERROR	41	PD9/FSMC_D14/USART3_RX
PRO PD11 SELFTEST	42	PD10/FSMC_D15/USART3_CK
PRO PD12 RUN	43	PD11/FSMC_A16/USART3_CTS
PRO PD13 CAN	44	PD12/FSMC_A17/TIM4_CH1/USART3_RTS
PRO PD14 UART	45	PD13/FSMC_A18/TIM4_CH2
PRO PD15 USER	46	PD14/FSMC_D0/TIM4_CH3
	47	PD15/FSMC_D1/TIM4_CH4
	48	NC
	49	GND
	50	GND

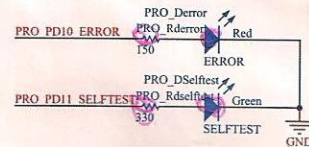
PB5/LC1_SMB

STM32F4DISCOVERY
KIT DE DEVELOPPEMENT

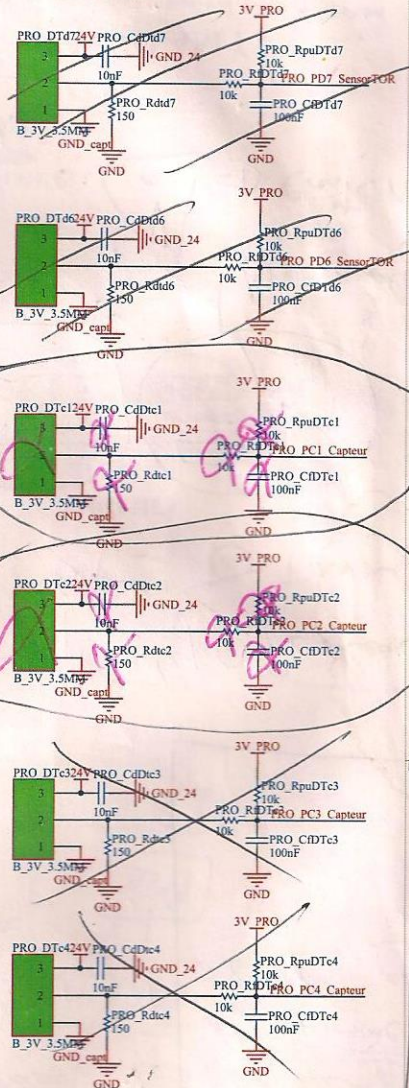
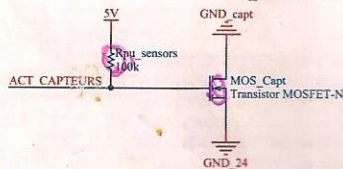
U1
GND
CS
SCK
(R230) OUT
(R230) Din

sion

Leds



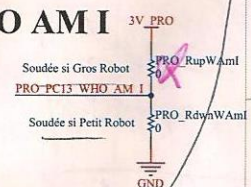
Capteurs DTx / TOR / ...



left

right

WHO AM I



B.IN1

0/WKUP

IN7

SMB/CAN2_RX/OTG_HS_ULPI_D7/ETH_PPS_OUT/TIM3_CH2/SPI1_MISO/I2Sext_SD

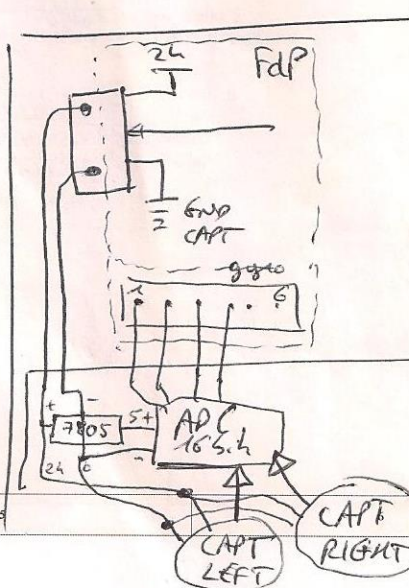
CH3

CH4

TXD0/ETH_MII_TXD0/OTG_HS_ID

MIL_TXD1/OTG_HS_VBUS

U orange
GND Robin
ES bleu
CK jaune
UT vert
in blanc



2 TM Laser

Title *			
Size: A2	Number: *	Revision: *	
Date: 24/02/2017	Time: 15:33:42	Sheet * of *	
File: M:\Robot\ SVN new\ Hard\2017 FDP\2017 FDP PROPULSION\SchDoc			

Altium

Capteurs

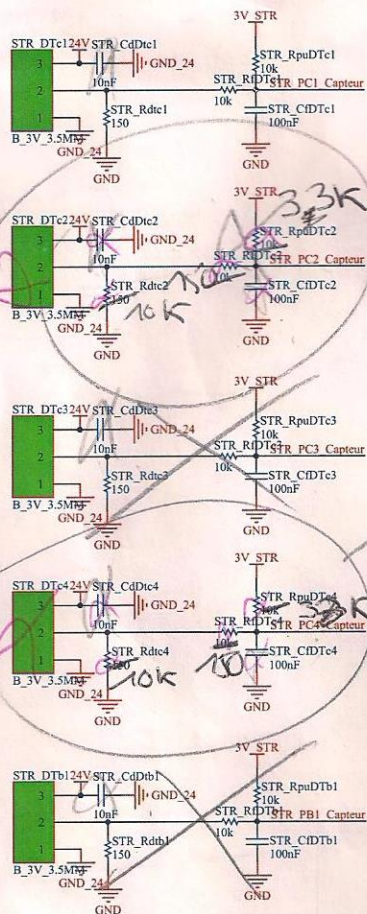
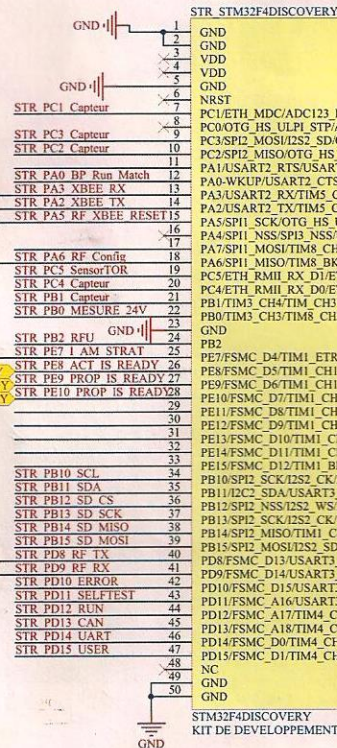
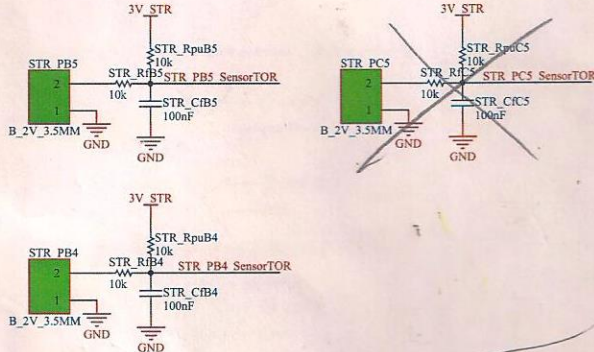
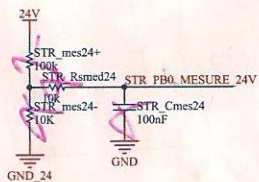


FIG 2 Small
CAPACITOR
left AR

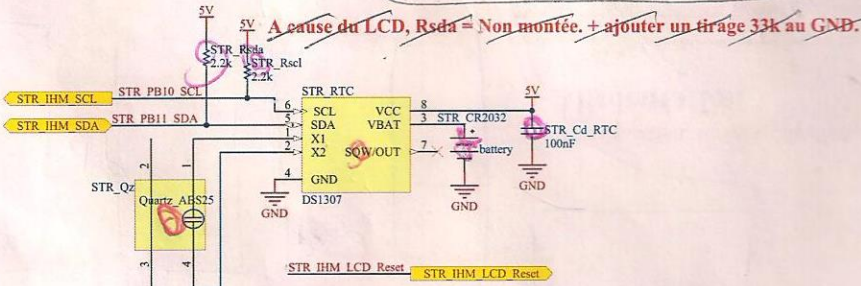
BIG only
CAPA
RIGHT
AR



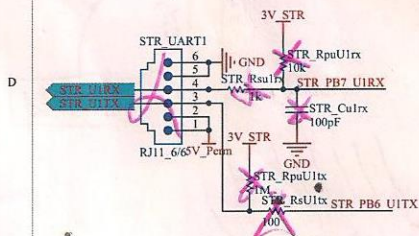
Mesure 24V



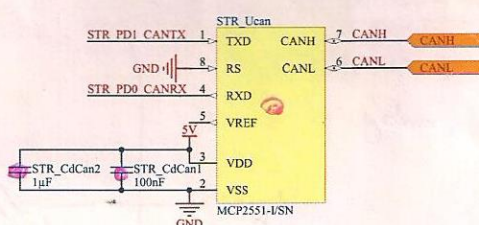
Horloge Temps Réel



UART1



CAN



STRAT

green
yellow
grey
CH1 L =
CH2 L =
CH3 L =

Magne

24V
3 pin
3.5mm

Altium