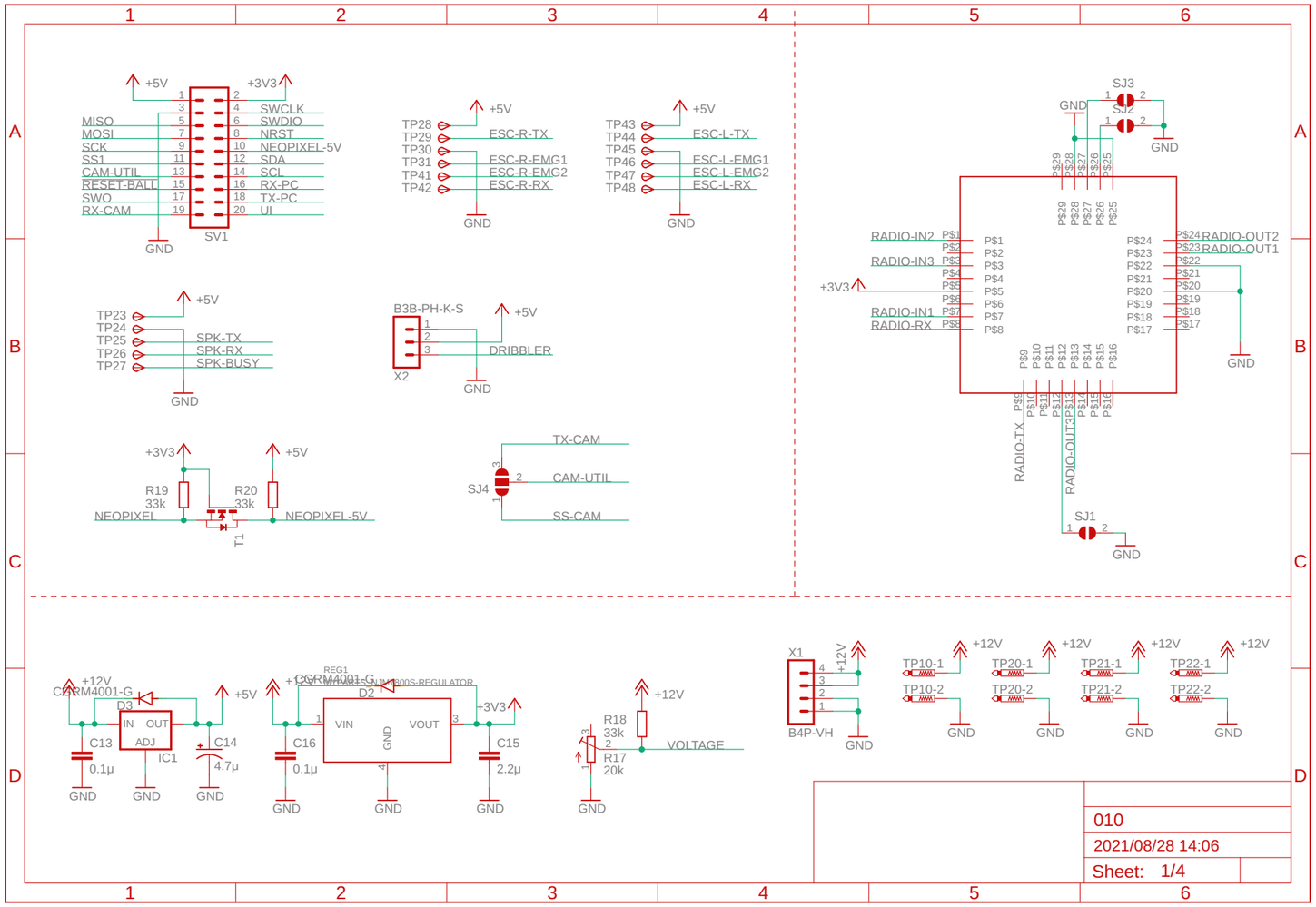
SV1
MISO
MOSI
SCK
SS1
CAM-UTIL
RESET-BALL
SWO
RX-CAM
SWCLK
SWDIO
NRST
NEOPIXEL-5V
SDA
SCL
RX-PC
TX-PC
UI
ESC-R-TX
ESC-R-EMG1
ESC-R-EMG2
ESC-R-RX
ESC-L-TX
ESC-L-EMG1
ESC-L-EMG2
ESC-L-RX
SPK-TX
SPK-RX
SPK-BUSY
B3B-PH-K-S
X2
DRIBBLER
R19 33k
R20 33k
NEOPIXEL
NEOPIXEL-5V
T1
SJ4
TX-CAM
CAM-UTIL
SS-CAM
SJ3
SJ2
SJ1
RADIO-IN2
RADIO-IN3
RADIO-IN1
RADIO-RX
RADIO-OUT2
RADIO-OUT1
RADIO-TX
RADIO-OUT3
CSRM4001-G
D3
IN OUT
ADJ
IC1
C13 0.1µ
C14 4.7µ
REG1
D2
VIN
VOUT
GND
C16 0.1µ
C15 2.2µ
R18 33k
R17 20k
VOLTAGE
X1
B4P-VH
TP10-1
TP10-2
TP20-1
TP20-2
TP21-1
TP21-2
TP22-1
TP22-2
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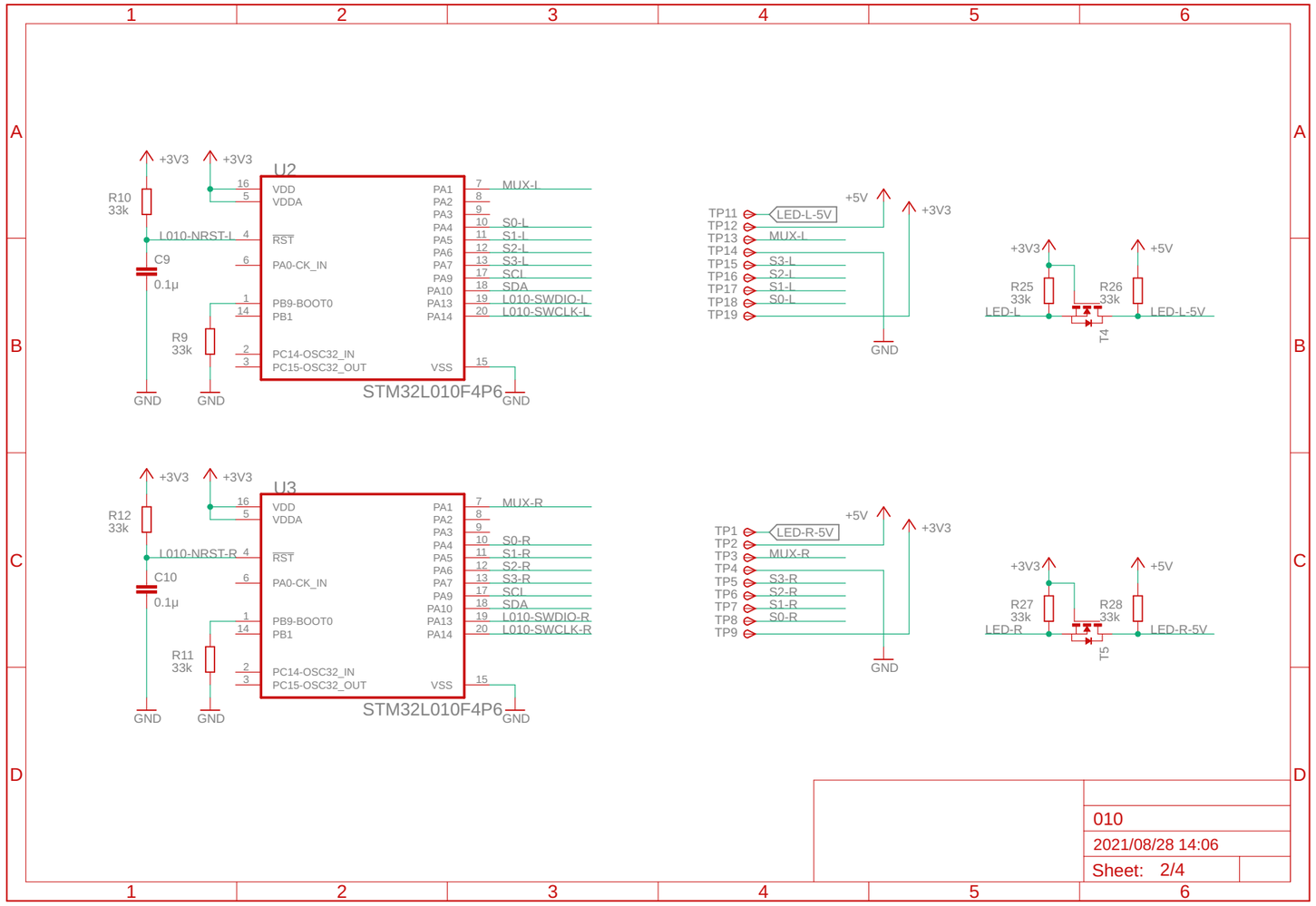
U1
STM32F446RET6
R8 33k
SOLENOID/4.3B
ESC-L-TX
ESC-L-RX
TX-PC
RX-PC
SCK
MISO
MOSI
UI
ESC-R-TX
ESC-R-RX
DRIBBLER
SWDIO
SWCLK
LED-L
ESC-L-EMG1
LED-R
SWO
SS-CAM
SS1
NEOPIXEL
LED-F
SCL
SDA
RESET-BALL
ESC-L-EMG2
ESC-R-EMG1
ESC-R-EMG2
BOOT0
PA0-WKUP(PA0)TIM2_CH1/TIM2_ETR/TIM5_CH1/TIM8_ETR/USART2_CTS/UART4_TX/EVENTOUT
PA1/TIM2_CH2/TIM5_CH2/USART2_RTS/UART4_RX/QUADSPI_BK1_IO3/SAI2_MCLK_B/EVENTOUT
PA2/TIM2_CH3/TIM5_CH3/TIM9_CH1/USART2_TX/SAI2_SCK_B/EVENTOUT
PA3/TIM2_CH4/TIM5_CH4/TIM9_CH2/SAI1_FS_A/USART2_RX/OTG_HS_ULPI_D0/EVENTOUT
PA4/SPI1_NSS/I2S1_WS/SPI3_NSS/I2S3_WS/USART2_CK/OTG_HS_SOF/DCMI_HSYNC/EVENTOUT
PA5/TIM2_CH1/TIM2_ETR/TIM8_CH1N/SPI1_SCK/I2S1_CK/OTG_HS_ULPI_CK/EVENTOUT
PA6/TIM1_BKIN/TIM3_CH1/TIM8_BKIN/SPI1_MISO/I2S2_MCK/TIM13_CH1/DCMI_PIXCLK/EVENTOUT
PA7/TIM1_CH1N/TIM3_CH2/TIM8_CH1N/SPI1_MOSI/I2S1_SD/TIM14_CH1/FMC_SDNWE/EVENTOUT
PA8/MCO1/TIM1_CH1/I2C3_SCL/USART1_CK/OTG_FS_SOF/EVENTOUT
PA9/TIM1_CH2/I2C3_SMBA/SPI2_SCK/I2S2_CK/SAI1_SD_B/USART1_TX/DCMI_D0/EVENTOUT
PA10/TIM1_CH3/USART1_RX/OTG_FS_ID/DCMI_D1/EVENTOUT
PA11/TIM1_CH4/USART1_CTS/CAN1_RX/OTG_FS_DM/EVENTOUT
PA12/TIM1_ETR/USART1_RTS/SAI2_FS_B/CAN1_TX/OTG_FS_DP/EVENTOUT
PA13/JTMS-SWDIO/EVENTOUT
PA14/JTCK-SWCLK/EVENTOUT
PA15/JTDI/TIM2_CH1/TIM2_ETR/HDMI_CEC/SPI1_NSS/I2S1_WS/SPI3_NSS/I2S3_WS/UART4_RTS/EVENTOUT
PB0/TIM1_CH2N/TIM3_CH3/TIM8_CH2N/SPI3_MOSI/I2S3_SD/UART4_CTS/OTG_HS_ULPI_D1/SDIO_D1/EVENTOUT
PB1/TIM1_CH3N/TIM3_CH4/TIM8_CH3N/OTG_HS_ULPI_D2/SDIO_D2/EVENTOUT
PB2-BOOT1(PB2)/TIM2_CH4/SAI1_SD_A/SPI3_MOSI/I2S3_SD/QUADSPI_CLK/OTG_HS_ULPI_D4/SDIO_CK/EVENTOUT
PB3(JTDO/TRACESWO)/JTDO/TRACESWO/TIM2_CH2/I2C2_SDA/SPI1_SCK/I2S1_CK/SPI3_SCK/I2S3_CK/EVENTOUT
PB4(NJTRST)/NJTRST/TIM3_CH1/I2C3_SDA/SPI1_MISO/SPI3_MISO/SPI2_NSS/I2S2_WS/EVENTOUT
PB5/TIM3_CH2/I2C1_SMBA/SPI1_MOSI/I2S1_SD/SPI3_MOSI/I2S3_SD/CAN2_RX/OTG_HS_ULPI_D7/FMC_SDCKE1/DCMI_D10/EVENTOUT
PB6/TIM4_CH1/HDMI_CEC/I2C1_SCL/USART1_TX/CAN2_TX/QUADSPI_BK1_NCS/FMC_SDNE1/DCMI_D5/EVENTOUT
PB7/TIM4_CH2/I2C1_SDA/USART1_RX/SPDIFRX_IN0/FMC_NL/DCMI_VSYNC/EVENTOUT
PB8/TIM2_CH1/TIM2_ETR/TIM4_CH3/TIM10_CH1/I2C1_SCL/CAN1_RX/SDIO_D4/DCMI_D6/EVENTOUT
PB9/TIM2_CH2/TIM4_CH4/TIM11_CH1/I2C1_SDA/SPI2_NSS/I2S2_WS/SAI1_FS_B/CAN1_TX/SDIO_D5/DCMI_D7/EVENTOUT
PB10/TIM2_CH3/I2C2_SCL/SPI2_SCK/I2S2_CK/SAI1_SCK_A/USART3_TX/OTG_HS_ULPI_D3/EVENTOUT
PB12/TIM1_BKIN/I2C2_SMBA/SPI2_NSS/I2S2_WS/SAI1_SCK_B/USART3_CK/CAN2_RX/OTG_HS_ULPI_D5/OTG_HS_ID/EVENTOUT
PB13/TIM1_CH1N/SPI2_SCK/I2S2_CK/USART3_CTS/CAN2_TX/OTG_HS_ULPI_D6/EVENTOUT
PB14/TIM1_CH2N/TIM8_CH2N/SPI2_MISO/USART3_RTS/TIM12_CH1/OTG_HS_DM/EVENTOUT
PB15/RTC_REFIN/TIM1_CH3N/TIM8_CH3N/SPI2_MOSI/I2S2_SD/TIM12_CH2/OTG_HS_DP/EVENTOUT
VDD
VDDA/VREF+
VBAT
VCAP_1
PC0/SAI1_MCLK_B/OTG_HS_ULPI_STP/FMC_SDNWE/EVENTOUT
PC1/SPI3_MOSI/I2S3_SD/SAI1_SD_A/SPI2_MOSI/I2S2_SD/EVENTOUT
PC2/SPI2_MISO/OTG_HS_ULPI_DIR/FMC_SDNE0/EVENTOUT
PC3/SPI2_MOSI/I2S2_SD/OTG_HS_ULPI_NXT/FMC_SDCKE0/EVENTOUT
PC4/I2S1_MCK/SPDIFRX_IN2/FMC_SDNE0/EVENTOUT
PC5/USART3_RX/SPDIFRX_IN3/FMC_SDCKE0/EVENTOUT
PC6/TIM3_CH1/TIM8_CH1/FMPI2C1_SCL/I2S2_MCK/USART6_TX/SDIO_D6/DCMI_D0/EVENTOUT
PC7/TIM3_CH2/TIM8_CH2/FMPI2C1_SDA/SPI2_SCK/I2S2_CK/I2S3_MCK/SPDIFRX_IN1/USART6_RX/SDIO_D7/DCMI_D1/EVENTOUT
PC8/TRACED0/TIM3_CH3/TIM8_CH3/UART5_RTS/USART6_CK/SDIO_D0/DCMI_D2/EVENTOUT
PC9/MCO2/TIM3_CH4/TIM8_CH4/I2C3_SDA/I2S_CKIN/UART5_CTS/QUADSPI_BK1_IO0/SDIO_D1/DCMI_D3/EVENTOUT
PC10/SPI3_SCK/I2S3_CK/USART3_TX/UART4_TX/QUADSPI_BK1_IO1/SDIO_D2/DCMI_D8/EVENTOUT
PC11/SPI3_MISO/USART3_RX/UART4_RX/QUADSPI_BK2_NCS/SDIO_D3/DCMI_D4/EVENTOUT
PC12/I2C2_SDA/SPI3_MOSI/I2S3_SD/USART3_CK/UART5_TX/SDIO_CK/DCMI_D9/EVENTOUT
PC13/EVENTOUT
PC14-OSC32_IN(PC14)/EVENTOUT
PC15-OSC32_OUT(PC15)/EVENTOUT
PD2/TIM3_ETR/UART5_RX/SDIO_CMD/DCMI_D11/EVENTOUT
PH0-OSC_IN/EVENTOUT
PH1-OSC_OUT/EVENTOUT
NRST
VOLTAGE
LED-B
RADIO-IN1
RADIO-OUT1
RADIO-IN2
RADIO-OUT2
TX-CAM
RX-CAM
SPK-BUSY
RADIO-OUT3
SPK-TX
SPK-RX
RADIO-TX
RADIO-IN3
RADIO-RX
NRST
VSSA/VREF-
VSS
C5 4.7µ
C1 0.1µ
C2 0.1µ
C6 0.1µ
C7 0.1µ
C8 0.1µ


U2
STM32L010F4P6
VDD
VDDA
RST
PA0-CK_IN
PB9-BOOT0
PB1
PC14-OSC32_IN
PC15-OSC32_OUT
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PA9
PA10
PA13
PA14
VSS
MUX-L
S0-L
S1-L
S2-L
S3-L
SCL
SDA
L010-SWDIO-L
L010-SWCLK-L
R10
33k
R9
33k
C9
0.1µ
L010-NRST-L
+3V3
GND
TP11
TP12
TP13
TP14
TP15
TP16
TP17
TP18
TP19
LED-L-5V
+5V
R25
33k
R26
33k
LED-L
T4
U3
STM32L010F4P6
MUX-R
S0-R
S1-R
S2-R
S3-R
L010-SWDIO-R
L010-SWCLK-R
R12
33k
R11
33k
C10
0.1µ
L010-NRST-R
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TP9
LED-R-5V
R27
33k
R28
33k
LED-R
T5
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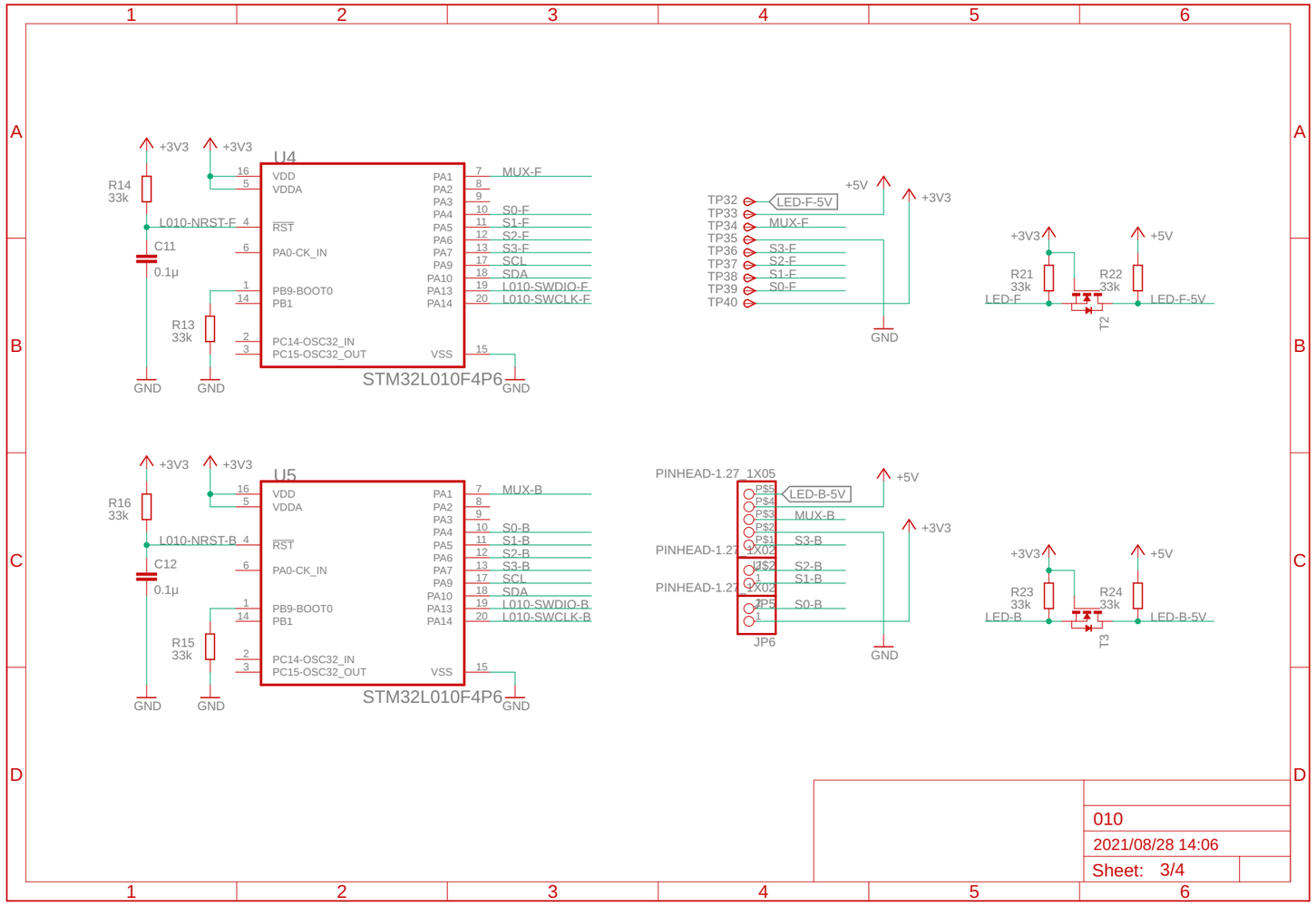


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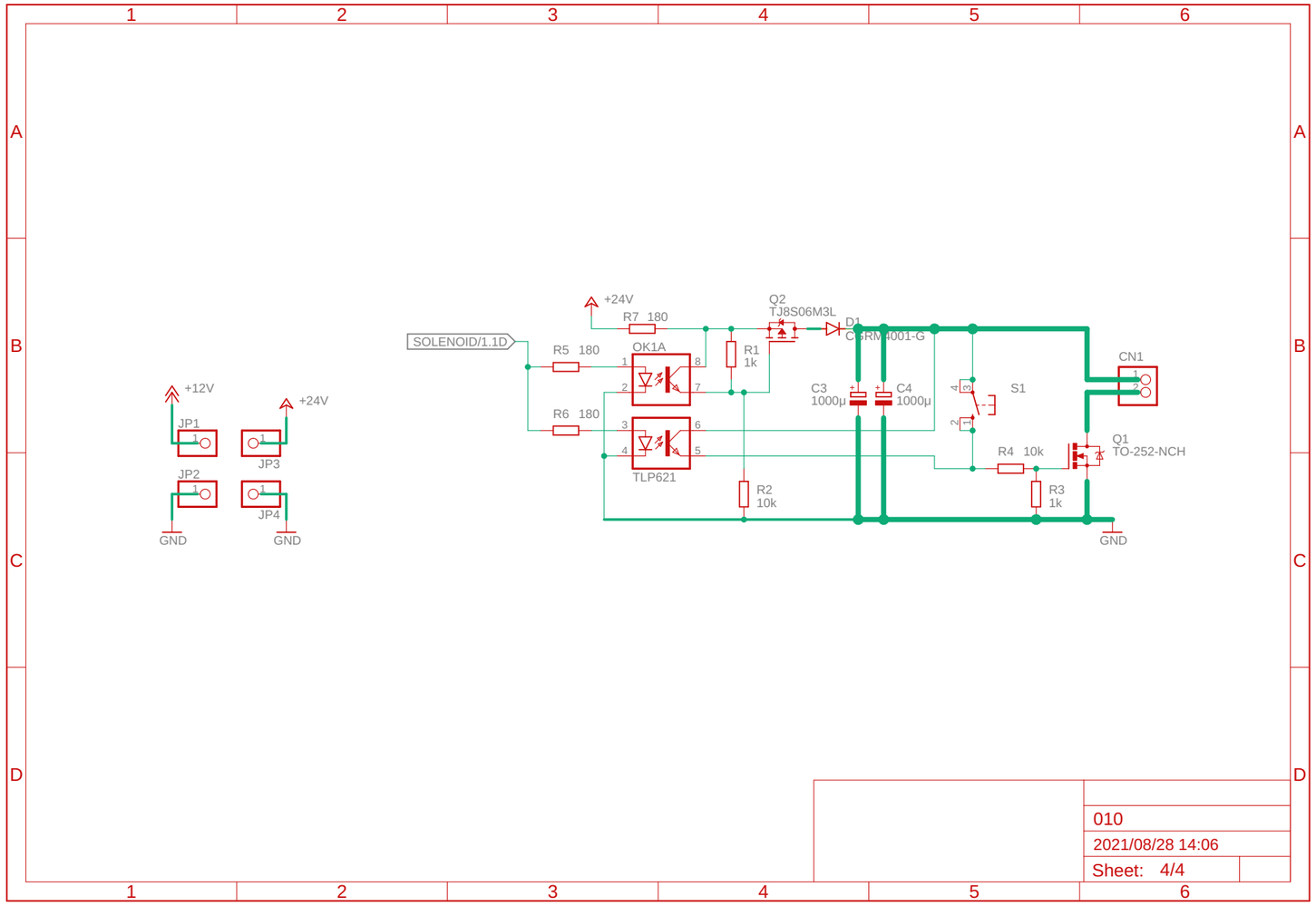


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