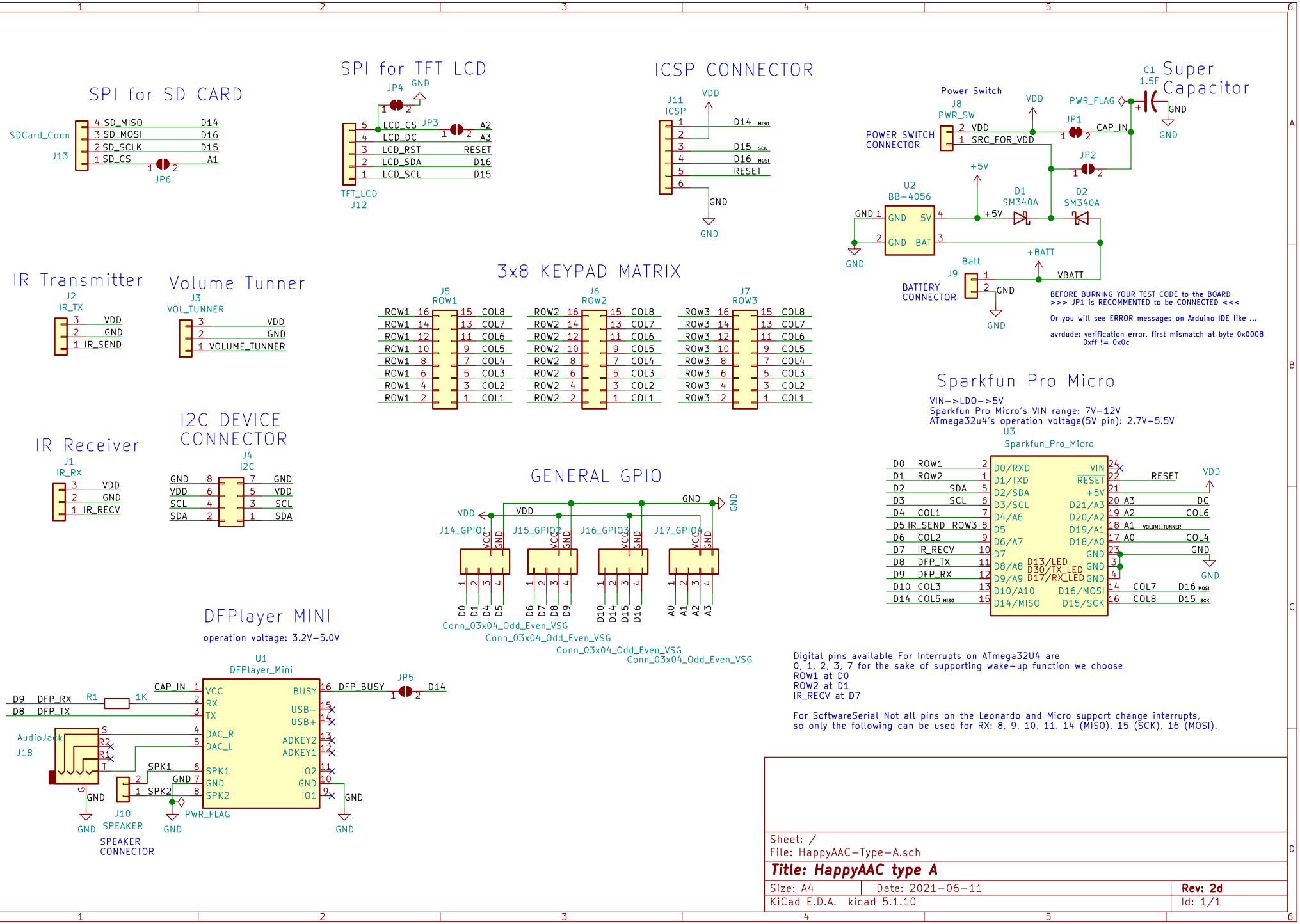
SPI for SD CARD
SDCard_Conn
J13
4 SD_MISO D14
3 SD_MOSI D16
2 SD_SCLK D15
1 SD_CS A1
JP6
SPI for TFT LCD
JP4
GND
JP3
A2
A3
5 LCD_CS
4 LCD_DC
3 LCD_RST RESET
2 LCD_SDA D16
1 LCD_SCL D15
TFT_LCD
J12
ICSP CONNECTOR
J11
ICSP
VDD
D14 MISO
D15 SCK
D16 MOSI
RESET
GND
C1 Super Capacitor
1.5F
Power Switch
J8
PWR_SW
POWER SWITCH CONNECTOR
2 VDD
1 SRC_FOR_VDD
VDD
PWR_FLAG
JP1
CAP_IN
JP2
+5V
U2
BB-4056
D1
SM340A
D2
SM340A
GND 1
GND 5V 4
GND BAT 3
2
+BATT
VBATT
Batt
J9
BATTERY CONNECTOR
BEFORE BURNING YOUR TEST CODE to the BOARD
>>> JP1 is RECOMMENTED to be CONNECTED <<<
Or you will see ERROR messages on Arduino IDE like ...
avrdude: verification error, first mismatch at byte 0x0008
0xff != 0x0c
IR Transmitter
J2
IR_TX
3 VDD
2 GND
1 IR_SEND
Volume Tunner
J3
VOL_TUNNER
3 VDD
2 GND
1 VOLUME_TUNNER
3x8 KEYPAD MATRIX
J5
ROW1
J6
ROW2
J7
ROW3
ROW1 16 15 COL8
ROW1 14 13 COL7
ROW1 12 11 COL6
ROW1 10 9 COL5
ROW1 8 7 COL4
ROW1 6 5 COL3
ROW1 4 3 COL2
ROW1 2 1 COL1
ROW2 16 15 COL8
ROW2 14 13 COL7
ROW2 12 11 COL6
ROW2 10 9 COL5
ROW2 8 7 COL4
ROW2 6 5 COL3
ROW2 4 3 COL2
ROW2 2 1 COL1
ROW3 16 15 COL8
ROW3 14 13 COL7
ROW3 12 11 COL6
ROW3 10 9 COL5
ROW3 8 7 COL4
ROW3 6 5 COL3
ROW3 4 3 COL2
ROW3 2 1 COL1
Sparkfun Pro Micro
VIN->LDO->5V
Sparkfun Pro Micro's VIN range: 7V-12V
ATmega32u4's operation voltage(5V pin): 2.7V-5.5V
U3
Sparkfun_Pro_Micro
D0 ROW1
D1 ROW2
D2 SDA
D3 SCL
D4 COL1
D5 IR_SEND ROW3
D6 COL2
D7 IR_RECV
D8 DFP_TX
D9 DFP_RX
D10 COL3
D14 COL5 MISO
D0/RXD
D1/TXD
D2/SDA
D3/SCL
D4/A6
D5
D6/A7
D7
D8/A8 D13/LED
D9/A9 D30/TX_LED
D10/A10 D17/RX_LED
D14/MISO
VIN
RESET
+5V
D21/A3
D20/A2
D19/A1
D18/A0
GND
D16/MOSI
D15/SCK
A3 DC
A2 COL6
A1 VOLUME_TUNNER
A0 COL4
COL7 D16 MOSI
COL8 D15 SCK
IR Receiver
J1
IR_RX
3 VDD
2 GND
1 IR_RECV
I2C DEVICE CONNECTOR
J4
I2C
GND 8 7 GND
VDD 6 5 VDD
SCL 4 3 SCL
SDA 2 1 SDA
GENERAL GPIO
VDD
GND
J14_GPIO1
J15_GPIO2
J16_GPIO3
J17_GPIO4
VCC
GND
D0 D1 D4 D5
D6 D7 D8 D9
D10 D14 D15 D16
A0 A1 A2 A3
Conn_03x04_Odd_Even_VSG
DFPlayer MINI
operation voltage: 3.2V-5.0V
U1
DFPlayer_Mini
CAP_IN 1
D9 DFP_RX
D8 DFP_TX
R1
1K
VCC
RX
TX
DAC_R
DAC_L
SPK1
GND
SPK2
BUSY
USB-
USB+
ADKEY2
ADKEY1
IO2
GND
IO1
16 DFP_BUSY
JP5
D14
AudioJack
J18
S
R2
R1
T
G
SPK1
GND
SPK2
J10
SPEAKER
SPEAKER CONNECTOR
PWR_FLAG
Digital pins available For Interrupts on ATmega32U4 are
0, 1, 2, 3, 7 for the sake of supporting wake-up function we choose
ROW1 at D0
ROW2 at D1
IR_RECV at D7
For SoftwareSerial Not all pins on the Leonardo and Micro support change interrupts,
so only the following can be used for RX: 8, 9, 10, 11, 14 (MISO), 15 (SCK), 16 (MOSI).
Sheet: /
File: HappyAAC-Type-A.sch
Title: HappyAAC type A
Size: A4
Date: 2021-06-11
Rev: 2d
KiCad E.D.A. kicad 5.1.10
Id: 1/1