oribokit™ Origami & Robotics kit

VERSION 1.0 COLLECTORS EDITION

STM32F103C8

EXPOSED PINS & FUNCTIONS

A6 PWM (3V), ADC/ANALOG A7 PWM (3V), ADC/ANALOG B0 PWM (3V), ADC/ANALOG B1 PWM (3V), ADC/ANALOG

B3 DIGITAL (5V)

B6 PWM (5V), DIGITAL
B7 PWM (5V), DIGITAL
B8 PWM (5V), DIGITAL
B9 PWM (5V), DIGITAL

USED PINS

B4 > RUN MODE (SEE JUMPER NOTE)
HI > B10 (5V DIGITAL)
LO > B11 (5V DIGITAL)

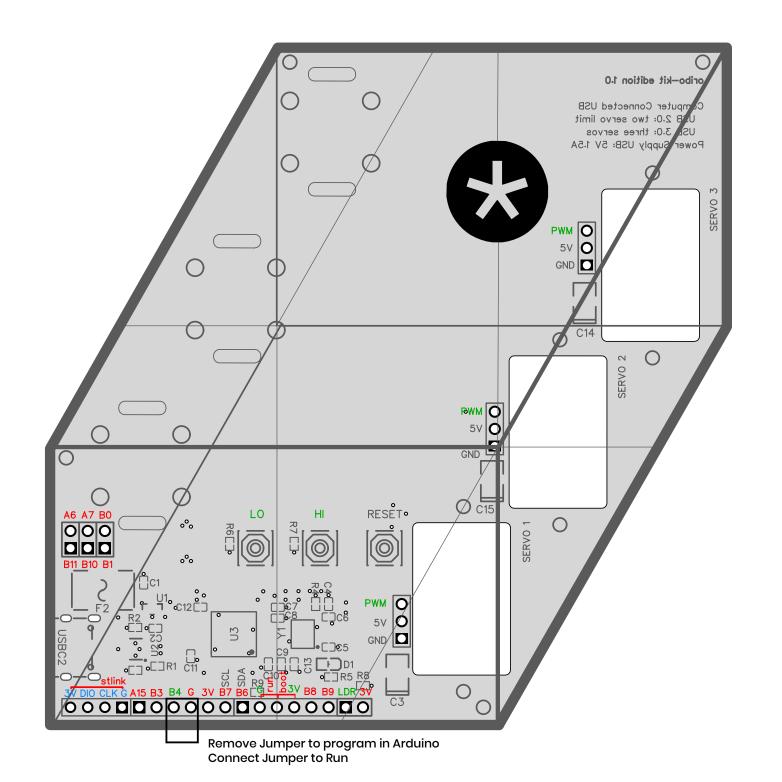
SERVO1 > A10 (5V PWM & DIGITAL)
SERVO2 > A9 (5V PWM & DIGITAL)
SERVO3 > A8 (5V PWM & DIGITAL)
LDR > A5 (3V ADC ANALOG)

STLINK

SWDIO > A13 CLK > A14 3V

GND

FUSE RATED AT 1.5 A



oribokit™ Origami & Robotics kit

VERSION 1.1 ARS ELECTRONICA EDITION

STM32F103C8

EXPOSED PINS & FUNCTIONS

BI PWM (3V), ADC/ANALOG BO PWM (3V), ADC/ANALOG A7 PWM (3V), ADC/ANALOG A6 PWM (3V), ADC/ANALOG B8 PWM (5V), DIGITAL B7 PWM (5V), DIGITAL B6 PWM (5V), DIGITAL

B4 DIGITAL (5V)
B3 DIGITAL (5V)

USED PINS

BOOT1

> B10 (5V DIĞITAL) ш LO > B11 (5V DIGITAL) > A10 (5V PWM & DIGITAL) SERVO1 (5V PWM & DIGITAL) SERVO2 > A9 (5V PWM & DIGITAL) SERVO3 > A8 (3V ADC ANALOG) **LDR**

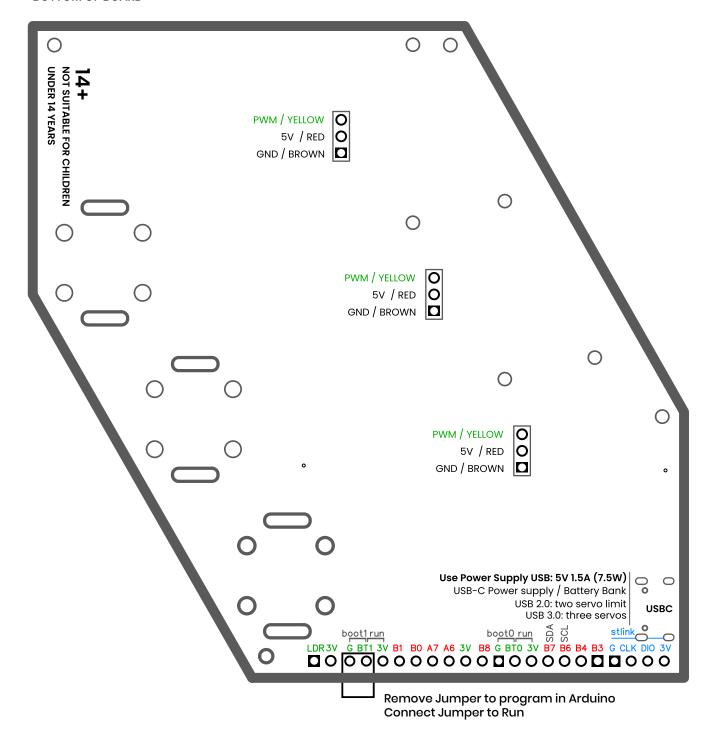
> RUN MODE (SEE JUMPER NOTE)

STLINK

SWDIO > A13 CLK > A14 3V GND

FUSE RATED AT 1.5 A

BOTTOM OF BOARD



oribokit®

ORIGAMI & ROBOTICS KIT

VERSION 1.4 RGB FLOWER ATMEGA32U4

EXP₁

2.54mm 6 pin header

TX Serial TX **RX Serial** RX 5V 5V Ground G

SDA 12C Serial Data **12C Serial Clock** SCL

EXP₂

2.54mm 6 pin header

INT Interrupt Analog Pin 5 **A5** Analog Pin 4 **A4 A3** Analog Pin 3 Analog Pin 2 **A2** Analog Pin 1 A1

RGB[1-3]

GND

GND

2.54mm 3 pin header

5V 5V DIGITAL DATA RGB1, RGB2, RGB3 **RGB1 PWM PB6** Pin 10 RGB2 PWM PC6 Pin 5 RGB3 PWM PC7 Pin 13

Ground

SERVO [1-3]

2.54mm 3 pin header

5V 5V DIGITAL Pin 9 **RGB1** PWM PB5 RGB2 PWM PD7 Pin 6 RGB3 PWM PD6 Pin 12

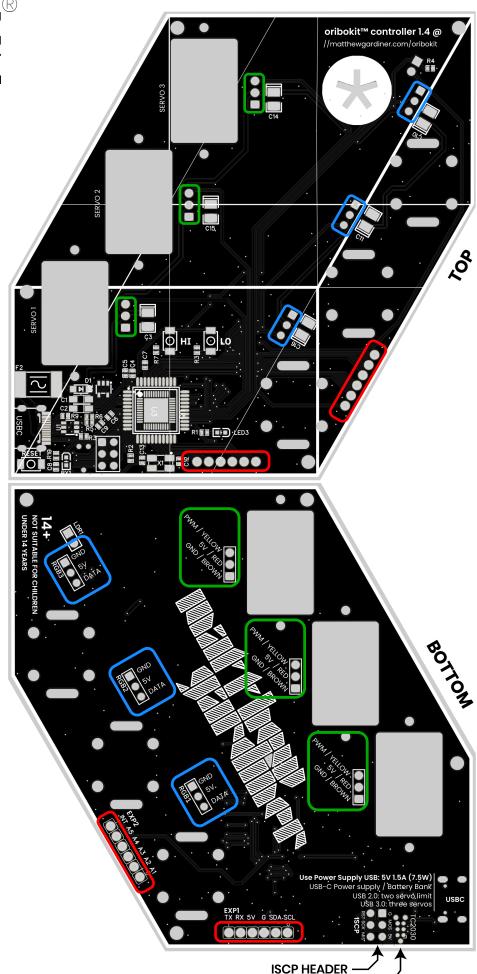
Ground

FUSE RATED AT 1.5 A

REVISION NOTES:

ATMEGA32u4 Native USB

Added EXP 1 for Serial and I2C Added EXP2 for Analogue Sensors Added RGB 1-3 for PWM RGB LEDs



TAG CONNECT

Oribokit®
ORIGAMI & ROBOTICS KIT

VERSION 1.5 RGB FLOWER 2 ATMEGA32U4

EXP₁

2.54mm 6 pin header

TX TX Serial
RX RX Serial
5V 5V
G Ground
SDA I2C Serial Data
SCL I2C Serial Clock

EXP₂

2.54mm 6 pin header

INT Interrupt
A5 Analog Pin 5
A4 Analog Pin 4
A3 Analog Pin 3
A2 Analog Pin 2
A1 Analog Pin 1

RGB[1-3]

2.54mm 3 pin header

GND Ground
5V 5V DIGITAL
DATA RGB1, RGB2, RGB3
RGB1 PWM PB6 Pin 10
RGB2 PWM PC6 Pin 5
RGB3 PWM PC7 Pin 13

SERVO [1-3]

2.54mm 3 pin header

GND Ground
5V 5V DIGITAL
RGB1 PWM PB5 Pin 9
RGB2 PWM PD7 Pin 6
RGB3 PWM PD6 Pin 12

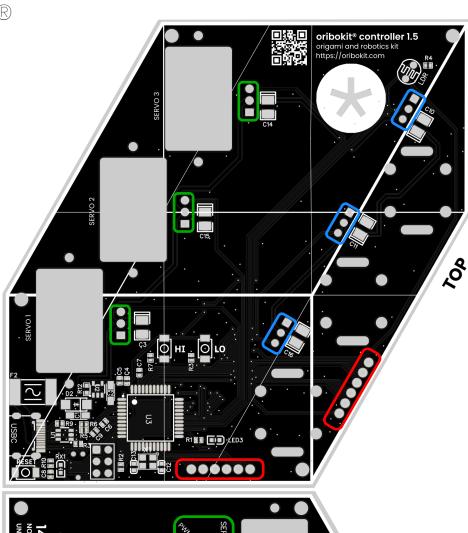
FUSE RATED AT 1.5 A

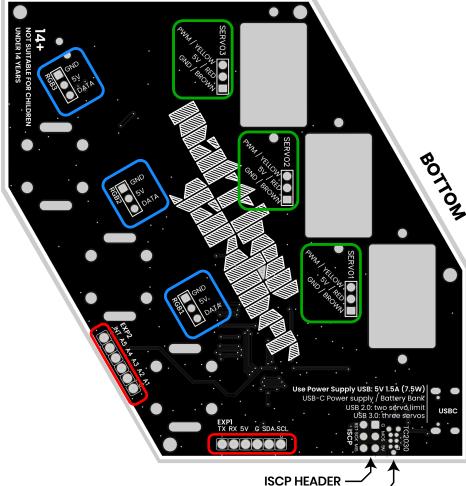
REVISION NOTES:

ATMEGA32u4 Added QR-CODE to oribokit.com

Chipaggeon necessitated updates

Updated 16MhZ crystal Updated Power Diode D2





TAG CONNECT

oribokit®
ORIGAMI & ROBOTICS KIT

VERSION 1.6

ATMEGA32U4

FLAT FLEX

EXP₁

2.54mm 6 pin header

TX TX Serial
RX RX Serial
5V 5V
G Ground
SDA I2C Serial Data
SCL I2C Serial Clock

EXP 2

2.54mm 6 pin header

INT Interrupt
A5 Analog Pin 5
A4 Analog Pin 4
A3 Analog Pin 3
A2 Analog Pin 2
A1 Analog Pin 1

RGB[1-3]

2.54mm 3 pin header

GND Ground
5V 5V DIGITAL
DATA RGB1, RGB2, RGB3
RGB1 PWM PB6 Pin 10
RGB2 PWM PC6 Pin 5
RGB3 PWM PC7 Pin 13

SERVO [1-3]

GND

2.54mm 3 pin header

5V 5V DIGITAL
RGB1 PWM PB5 Pin 9
RGB2 PWM PD7 Pin 6
RGB3 PWM PD6 Pin 12

Ground

FPC [1-3]

0.5mm Flat Flex Cable **GND** Ground **5V DIGITAL 5V RGB OUT** Not connected **RGB IN RGB1 RGB2 RGB3** Analog Pin 4 Α4 **A3** Analog Pin 3 Analog Pin 2 **A2** Analog Pin 1 A1

FUSE RATED AT 1.5 A

REVISION NOTES:

ATMEGA32u4 Added Flat Flex connectors Updated USB-C connector

