CAN communication

Connected via DIP Switch

Connected via DIP Switch

120 Ohm

120 Ohm

CAN_H   CAN_L

CAN_H   CAN_L

CAN_H   CAN_L

| CAN Transceiver | MAX2542 |

| CAN Transceiver | MAX2542 |

| CAN Transceiver | MAX2542 |

TxD   RxD

TxD   RxD

TxD   RxD

SCLK
MOSI
MISO
NSS

Raspberry Pi Zero

STM32F071V8T6

STM32F071V8T6

■ ■ ■

STM32F071V8T6

5

54

5

54

5

54

Address selection (DIP SWITCH)

6x motors

Address selection (DIP SWITCH)

6x motors

Address selection (DIP SWITCH)

6x motors

MICRO-USB —+5V→ SELECTOR ←+5V— Raspberry Pi Zero

SELECTOR —+5V→ LDO (5V -> 3.3V) —+3.3V→ SELECTOR

+3.3V

SELECTOR —+3.3V→ STM32F071V8T6

I2C 2
SPI 4
UART 2

SPI_IN Connector

I2C Connector
UART Connector
6
4
4

STLINK_V3SET
RESET Button
External Oscillator

6x triaxes motors
6x biaxes motors

SPI_OUT Connector
UART Connector
I2C Connector
6
4
4

+3.3V

I2C communication

SCL

SDA

Raspberry Pi Zero

STM32F071V8T6

STM32F071V8T6

STM32F071V8T6

STM32F071V8T6

■ ■ ■

54

54

54

54

6x motors

6x motors

6x motors

6x motors

SPI communication

Raspberry Pi Zero		STM32F071V8T6		STM32F071V8T6		STM32F071V8T6	

Raspberry Pi Zero → STM32F071V8T6: SCLK, MOSI, MISO, NSS

STM32F071V8T6 → STM32F071V8T6: SCLK, MOSI, MISO, NSS

STM32F071V8T6 → STM32F071V8T6: SCLK, MOSI, MISO, NSS

■ ■ ■

54 — 6x motors

54 — 6x motors

54 — 6x motors

+3.3V

UART communication

Tx

Rx

Raspberry Pi Zero

| Rx | Tx | Rx | Tx | Rx | Tx | Rx | Tx |

STM32F071V8T6   **STM32F071V8T6**   **STM32F071V8T6**   **STM32F071V8T6**   ■ ■ ■

54   54   54   54

6x motors   6x motors   6x motors   6x motors