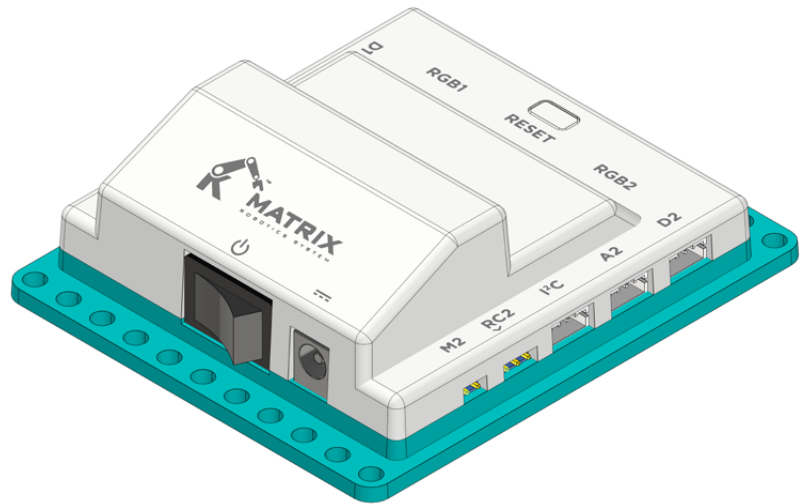


1. Feature

- Support 2 channel RC Servo control.
- Support 2 channel DC motor control.
- Support 2 channel I2C Interface.
- Support 4 channel GPIO.

2. Application

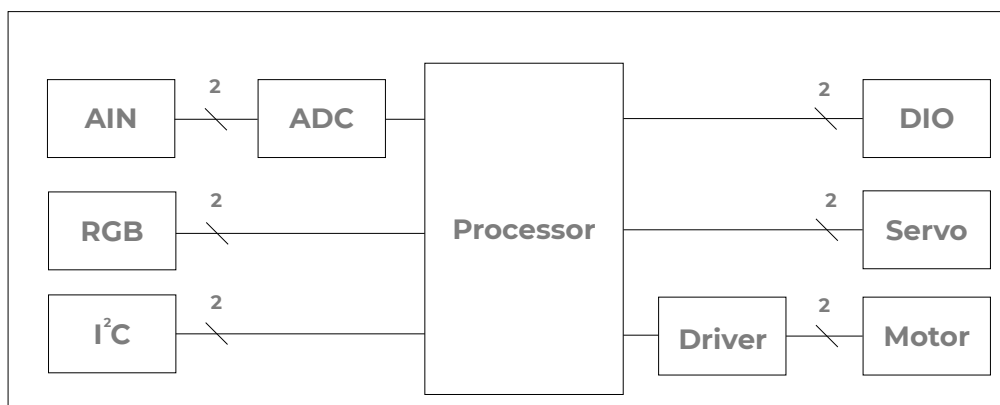
- Spin wheel
- Alcohol dispenser.
- Ferris Wheel.



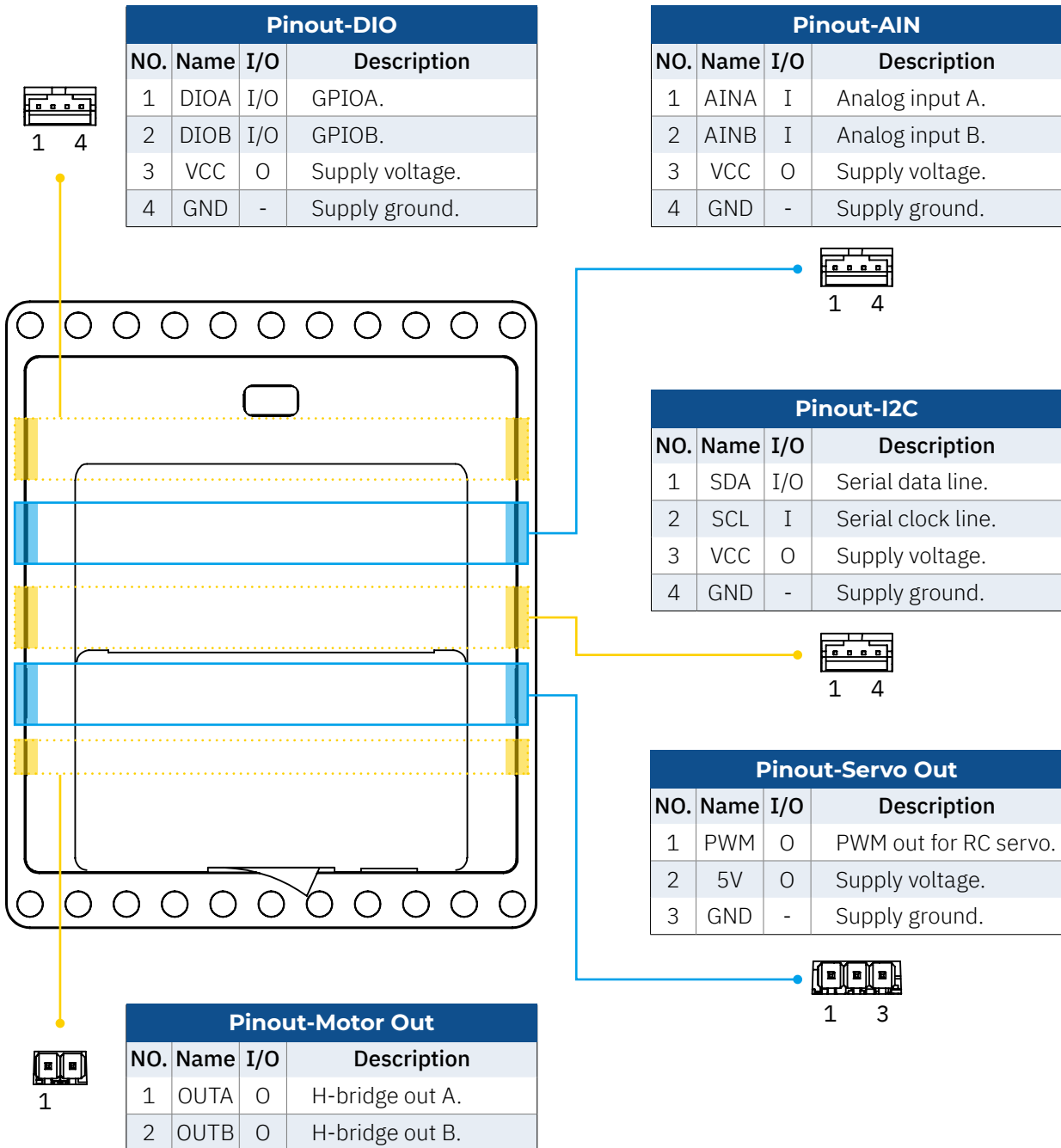
3. Introduction

MATRIX Micro is an integrated robot controller. Provide to bridge between micro:bit and robotics control. Use MATRIX Micro as the core to easily drive motors to fit various robotics application scenarios.

4. Block Diagram



5. Pinout 5.1. Matrix Micro Pinout



5.2. Microbit Pin Mapping

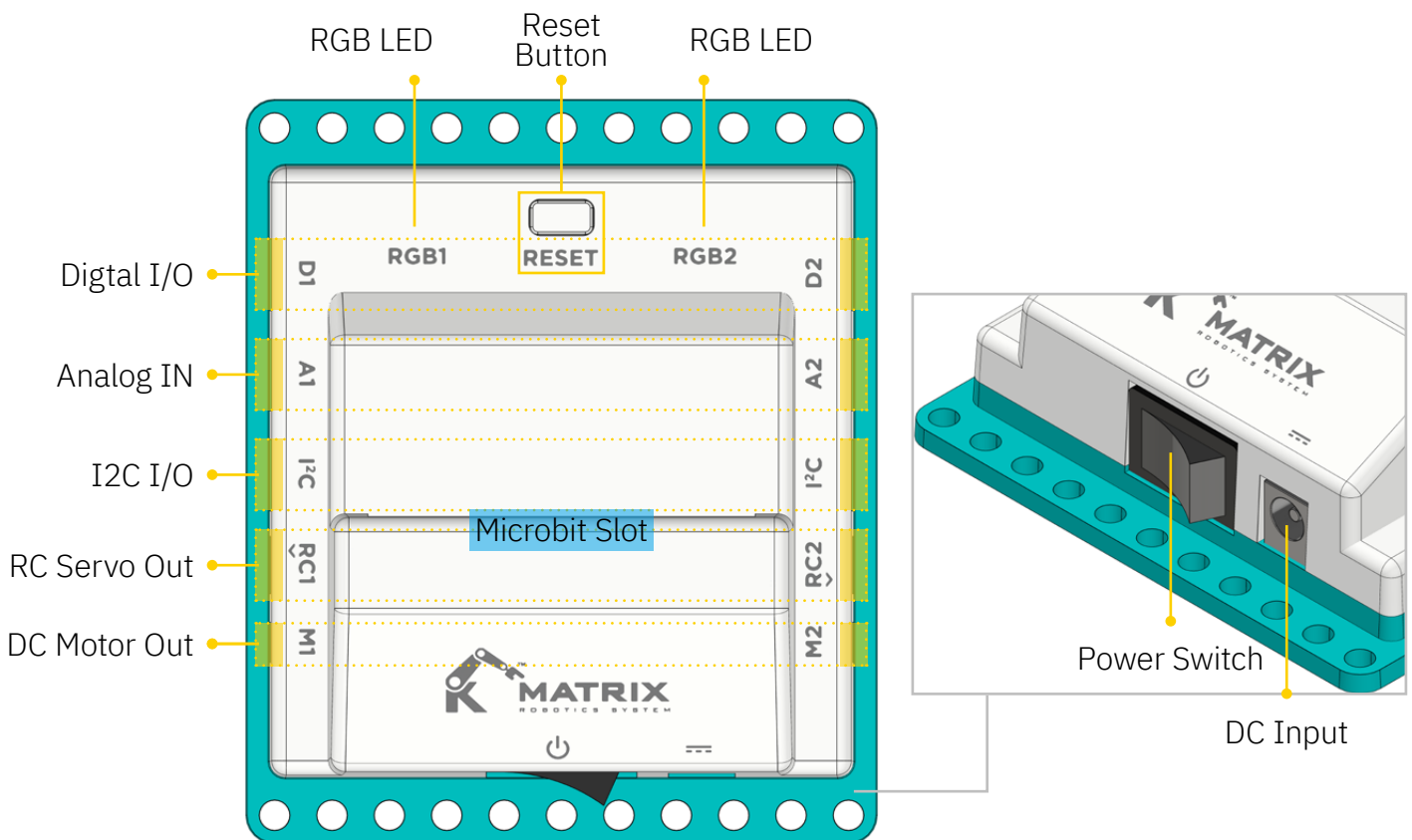
Matrix Micro		Microbit
D1	D1A	P14
	D1B	P1
D2	D2A	P12
	D2B	P15
I2C	SDA	P20
	SCL	P19
RC	RC1-PWM	P14
	RC2-PWM	P2
Buzzer		P0
RGB		P8
Analog IN		External IC
DC		External IC

6. Electrical Characteristics

Parameter	Min	Typ	Max	Units
Input Voltage	6	-	24	V
I/O Voltage	-	5	-	V
Digital I/O Pin Current	-	-	33	mA
Analog In Pin Current	-	-	5	mA
RC Servo Output Voltage	-	5	-	V
DC Motor Output Voltage	-	5	-	V
RC Servo Output Current	-	-	2	A
DC Motor Output Current	-	-	2	A

7. Usage

7.1. Hardware Guide

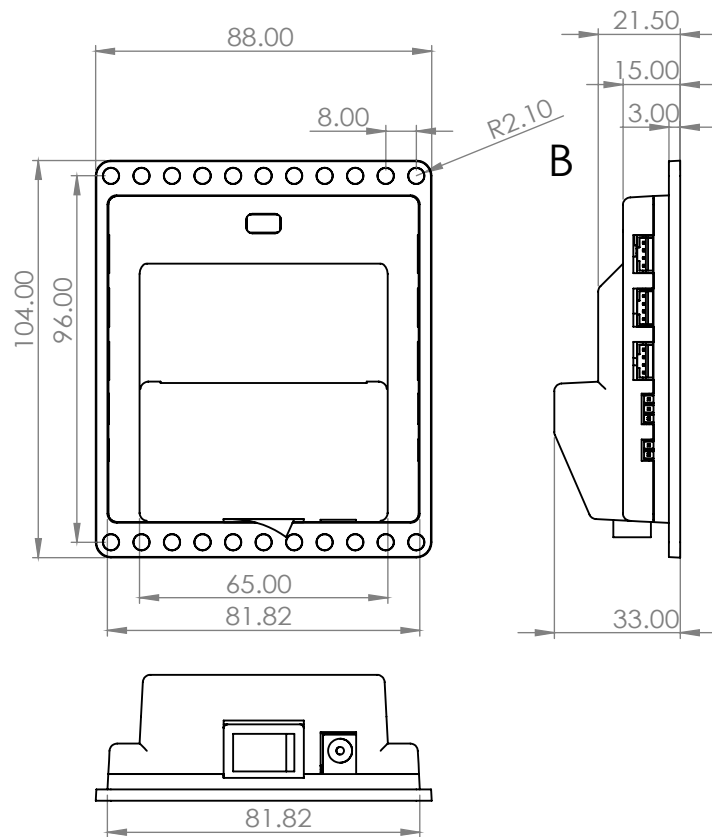


7.2. Software API

- Open Microsoft MakeCode for micro:bit
- Click on New Project
- Click on Extensions under the gearwheel menu
- Search for <https://github.com/Matrix-Robotics/pxt-MatrixMicro/> and import

For further information and example code please checkout our github page <https://matrix-robotics.github.io/pxt-MatrixMicro/>

8. Dimensions



Unit: mm

9. Disclaimer

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