ByteRider

Version

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ByteRider documentation

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INTRODUCTION

HOW DOES IT WORK?

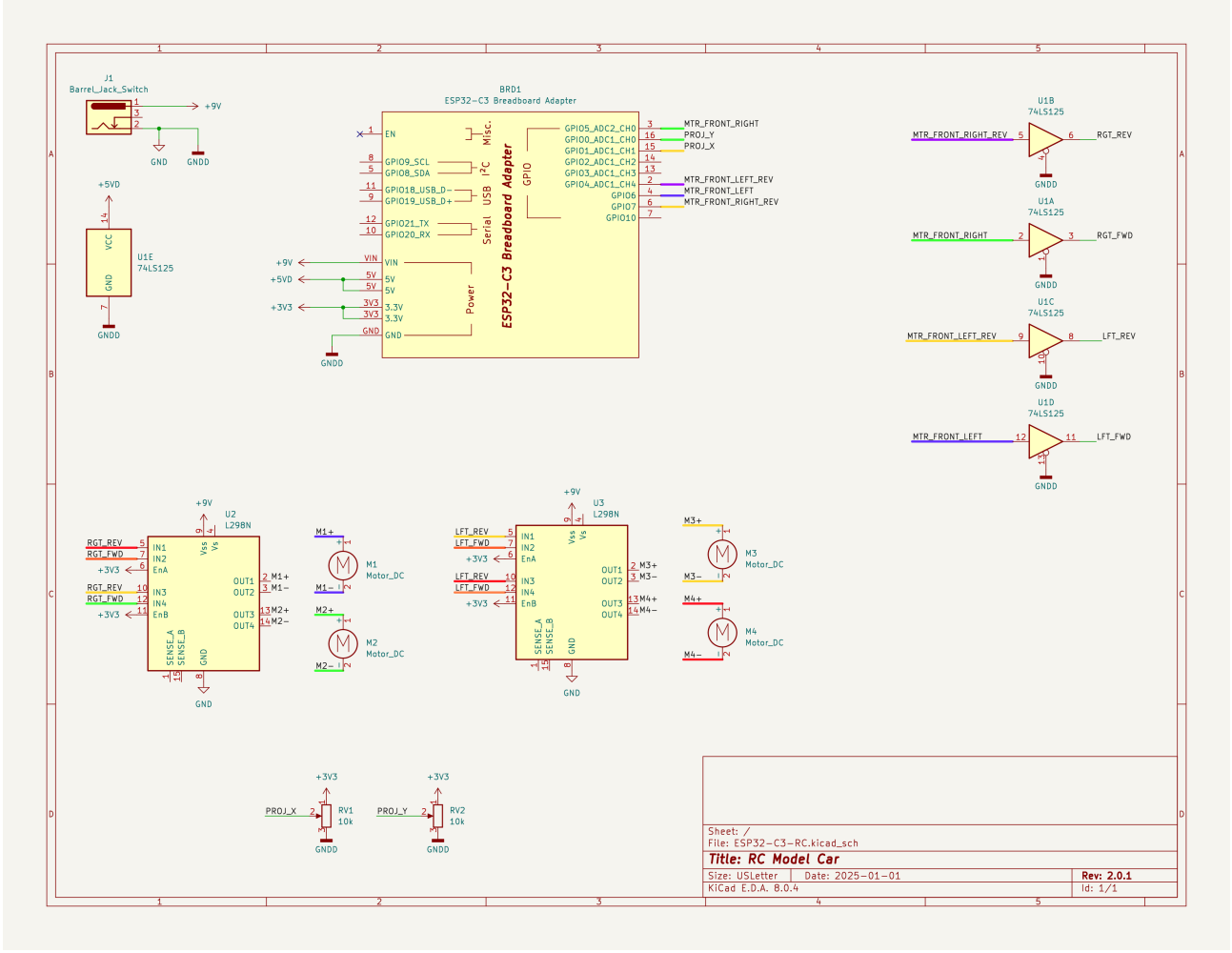
The BitByteRider RC car is powered by ESP32-C3 Breadboard & Power adapter developmemt board.

Reserver Pins & GPIOs

The table below summarizes GPIOs and pins reserved for operations purposes.

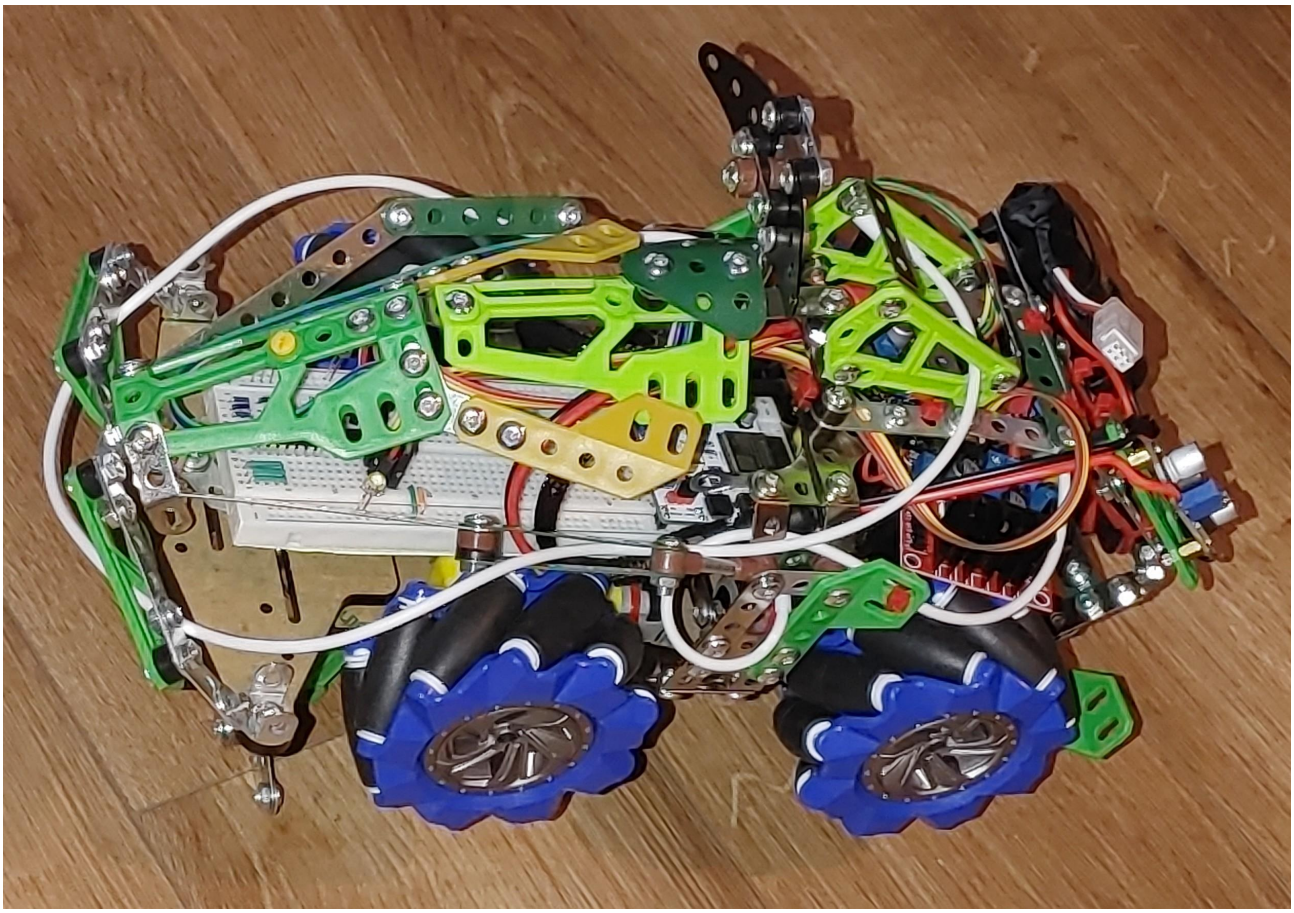
GPIO	Pin	Function	Notes
0	16	Joystick x-axis	ADC1_CH0
1	15	Joystick y-axis	ADC1_CH1
8	5	Joystick push button	Data
6	4	PWM for clockwise rotation of left-side motors	LEDC_CHANNEL_1
5	3	PWM for clockwise rotation of right-side motors	LEDC_CHANNEL_0
4	2	PWM for counter-clockwise rotation of right-side motors	LEDC_CHANNEL_2
7	6	PWM for counter-clockwise rotation of left-side motors	LEDC_CHANNEL_3

Schematic

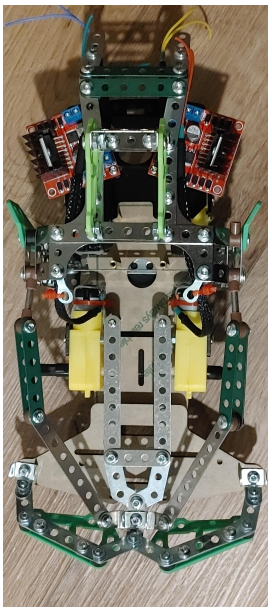

J1
Barrel_Jack_Switch
+9V
GND
GNDD
BRD1
ESP32-C3 Breadboard Adapter
ESP32-C3 Breadboard Adapter
Misc.
I²C
Serial USB
GPIO
Power
EN
GPIO9_SCL
GPIO8_SDA
GPIO18_USB_D-
GPIO19_USB_D+
GPIO21_TX
GPIO20_RX
VIN
5V
3.3V
GPIO5_ADC2_CH0
GPIO0_ADC1_CH0
GPIO1_ADC1_CH1
GPIO2_ADC1_CH2
GPIO3_ADC1_CH3
GPIO4_ADC1_CH4
GPIO6
GPIO7
GPIO10
MTR_FRONT_RIGHT
PROJ_Y
PROJ_X
MTR_FRONT_LEFT_REV
MTR_FRONT_LEFT
MTR_FRONT_RIGHT_REV
U1E
74LS125
U1B
74LS125
U1A
74LS125
U1C
74LS125
U1D
74LS125
RGT_REV
RGT_FWD
LFT_REV
LFT_FWD
U2
L298N
U3
L298N
IN1
IN2
EnA
IN3
IN4
EnB
OUT1
OUT2
OUT3
OUT4
SENSE_A
SENSE_B
M1
Motor_DC
M2
Motor_DC
M3
Motor_DC
M4
Motor_DC
RV1
10k
RV2
10k
PROJ_X
PROJ_Y
Sheet: /
File: ESP32-C3-RC.kicad_sch
Title: RC Model Car
Size: USLetter
Date: 2025-01-01
Rev: 2.0.1
KiCad E.D.A. 8.0.4
Id: 1/1

WORK-IN-PROGRESS WALK THROUGH

Finished Work

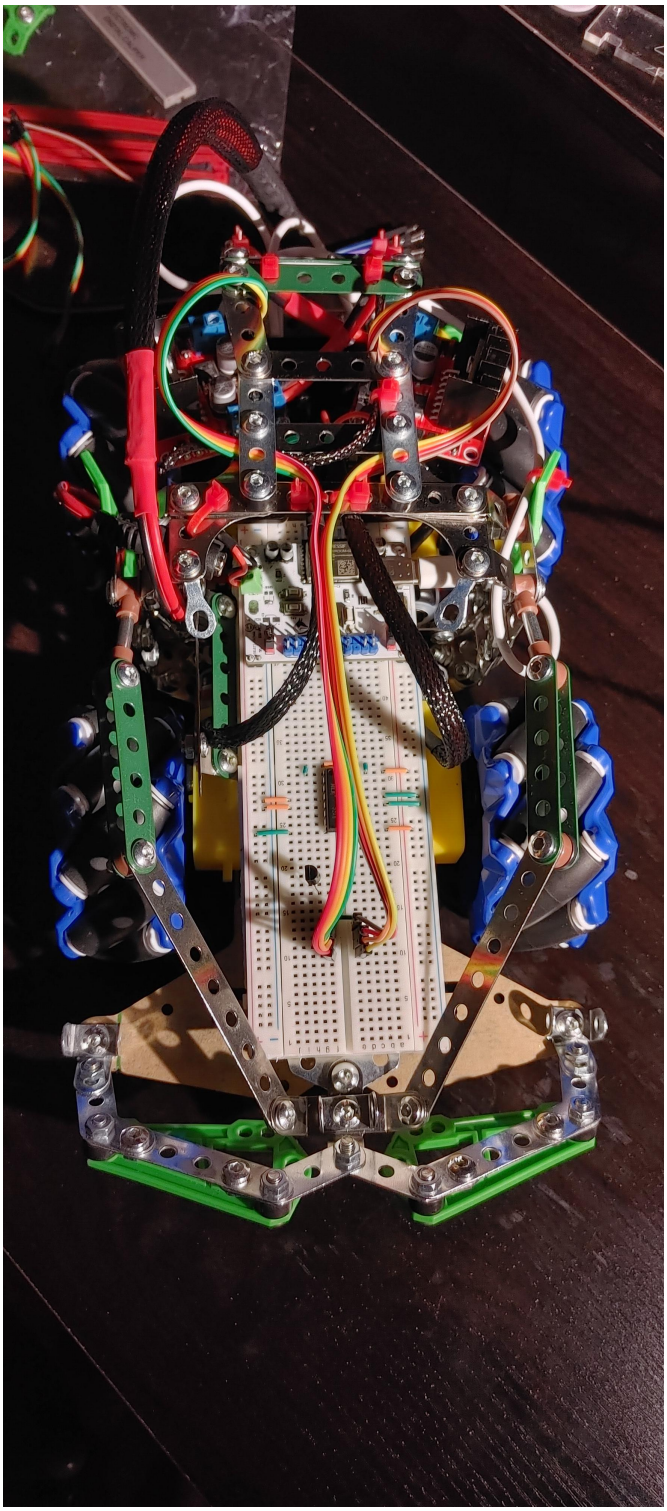


Chassis



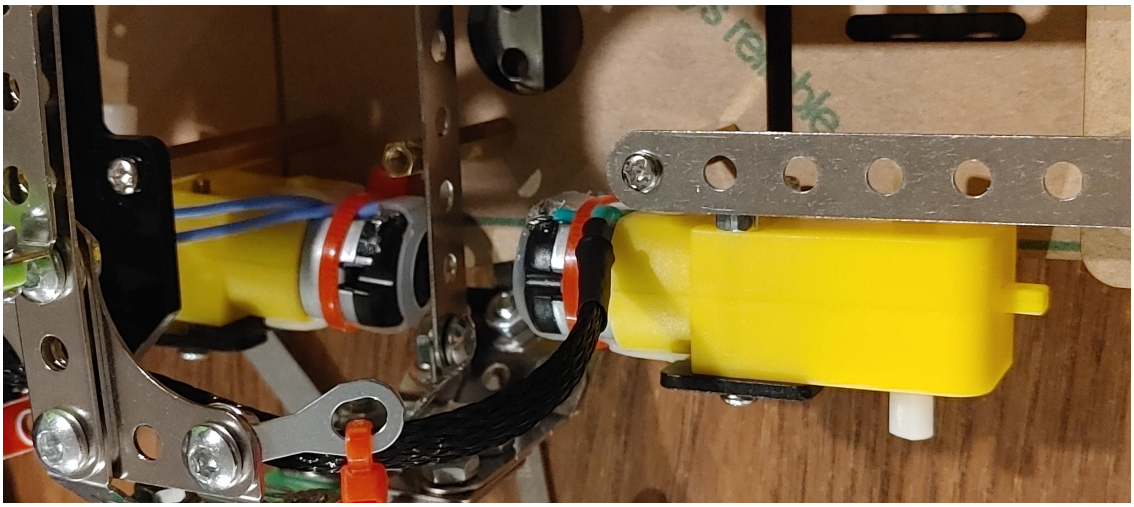
Completed chassis with only DC motor controllers installed.

Wiring



Completed wiring.

Motor Wires Harness



DC Motors wires secured inside harnes.