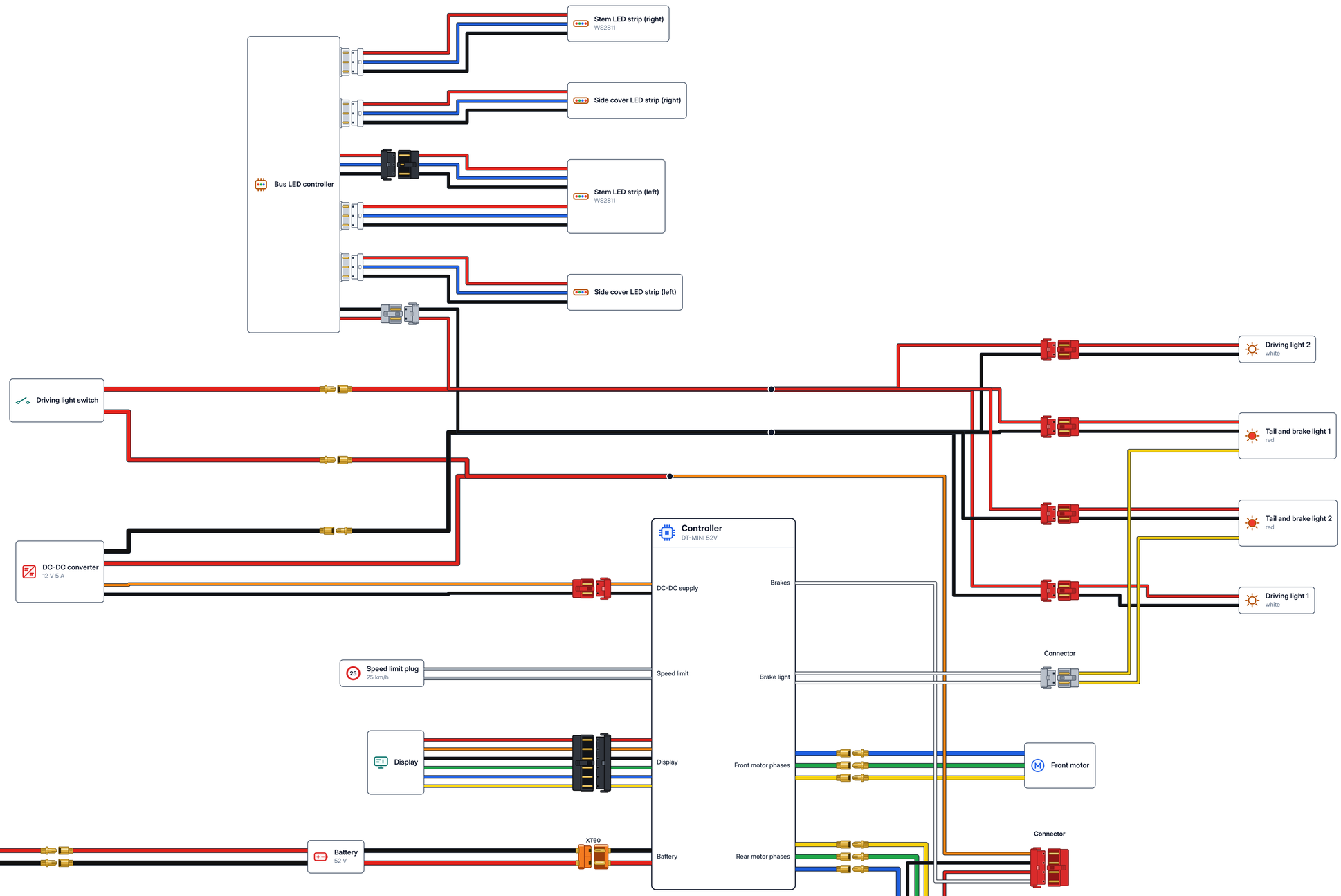
WIRING DIAGRAM

Dualtron Mini Special | 52 V

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WIRE COLOURS

- Black BK
- Blue BU
- Green GN
- Grey GY
- Orange OG
- Red RD
- White WH
- Yellow YE

CONNECTORS

Gold pins: male side. Dark sockets: female side.

- JST SM plug
- Bullet connectors
- Splice: wires are joined at this point
- XT60
- Board header

NOTES

1. The controller is marked "single drive" on the original, yet a front motor and a rear motor are both drawn and connected to it.
2. Both brake switches are wired in parallel. After their shared red plug, the black wire turns white and goes to the controller, the red wire turns orange and joins the DC-DC converter + output in a grey Y plug, ahead of the driving light switch.
3. The left pole strip has two cables: its input (12V, D, GND) goes to the black 3-pin plug of the bus LED controller, and its output (U+, OUT, U-) comes back to one of the four V+, DI, V- headers of the same controller.
4. The DC-DC converter IN+ terminal is drawn red, but the wire leaving it is orange all the way to the controller.
5. Both brake switches carry the same "left / right" label on the original, which does not say which one is on the left.
6. The original diagram shows no throttle.

DOCUMENT

Based on the manufacturer diagram "Schéma électrique DUALTRON Mini" dated 10 March 2022.

Redrawn by FõhzShop on 1 November 2026.

Disconnect the battery before any work.

CONNECTOR PINOUT

Connector	To	Wire
Controller Front motor phases	**Front motor** Connectors: Bullet connectors	Blue · Motor phase Green · Motor phase Yellow · Motor phase
Controller Rear motor phases	**Rear motor** Connectors: Bullet connectors	Yellow · Motor phase Green · Motor phase Blue · Motor phase
Battery Output	**Controller** Battery Connectors: XT60	Black · Battery – Red · Battery +
Charging port	**Battery** Charge Connectors: Bullet connectors	1 · Red · Charge + 3 · Black · Charge –
Display	**Controller** Display Connectors: JST SM plug	Red Orange Black Green Blue Yellow
Speed limit plug	**Controller** Speed limit	Grey Grey
Brake switch 1	**Splice** Connectors: JST SM plug	Blue, then black after the connector Red
Brake switch 2	**Splice** Connectors: JST SM plug	Blue, then black after the connector Red
Splice	**Connector**	→ 2 · Black → 1 · Red
Connector	**Controller** Brakes	2 · White
Connector	**Splice**	1 · Orange
DC-DC converter Input	**Controller** DC-DC supply Connectors: JST SM plug	→ 2 · Orange · IN+ → 1 · Black · IN–
DC-DC converter Output	**Splice**	Red · +12 V
Splice	**Driving light switch** Input Connectors: Bullet connectors	Red

Connector	To	Wire
Driving light switch Output	**Splice** Connectors: Bullet connectors	Red
Splice	**DC-DC converter** Output Connectors: Bullet connectors	Black · Ground
Driving light 1	**Splice** Connectors: JST SM plug	Red Black
Driving light 2	**Splice** Connectors: JST SM plug	Red Black
Tail and brake light 1	**Splice** Connectors: JST SM plug	Red Black
Tail and brake light 1 Brake light	**Connector**	Yellow
Tail and brake light 2	**Splice** Connectors: JST SM plug	Red Black
Tail and brake light 2 Brake light	**Connector**	Yellow
Connector	**Controller** Brake light	White White
Bus LED controller Power	**Splice** Connectors: JST SM plug	1 · Black 2 · Red
Bus LED controller RGB output 1	**Stem LED strip (right)** Connectors: Board header	Red · +12 V Blue · LED data Black · Ground
Bus LED controller RGB output 2	**Side cover LED strip (left)** Connectors: Board header	Red · LED + Blue · LED data Black · LED –
Bus LED controller RGB output 5	**Stem LED strip (left)** Input Connectors: JST SM plug	1 · Red · +12 V 2 · Blue · LED data 3 · Black · Ground
Bus LED controller RGB output 4	**Side cover LED strip (right)** Connectors: Board header	Red · LED + Blue · LED data Black · LED –
Stem LED strip (left) Output	**Bus LED controller** RGB output 3 Connectors: Board header	Red · LED + Blue · LED data Black · LED –