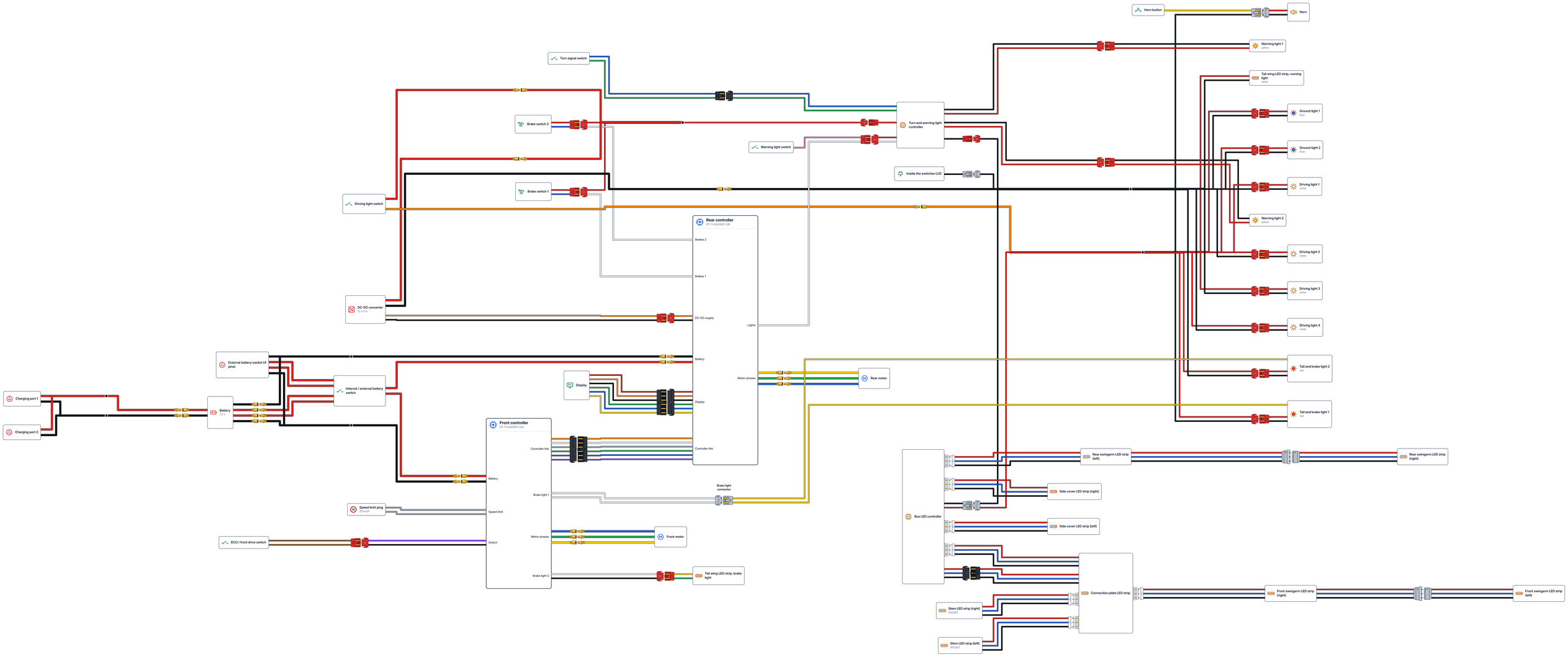
WIRING DIAGRAM

Dualtron Thunder 2 | 72 V

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WIRE COLOURS

- Black BK
- Grey GY
- Violet VT
- Blue BU
- Orange OG
- White WH
- Brown BN
- Pink PK
- Yellow YE
- Green GN
- Red RD

CONNECTORS

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

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

NOTES

1. The internal / external battery switch connects both controllers either to the two red battery wires or to pins 1 and 2 of the external battery socket. Pins 3 and 4 of that socket join the black battery wires that go to the controllers.
2. The RGB strips are addressable LEDs with three wires: supply (V+), data (DI) and ground (V-).
3. On the original, the Chinese label of the two rear swingarm strips says "rear right" and "rear left", but their English label says "Front_lt_balls_RGB LED" and "Front_l__balls_RGB LED" (front). This diagram follows the Chinese label.
4. On the original, the switch wired to the front controller is labelled "ECO switch" in Chinese and "Front drive switch" in English. Its wire J7 is marked light brown and its wire J8 brown.
5. On the turn signal switch, position L connects the green wire J5, which reaches input R of the turn and warning controller, and position R connects the blue wire J4, which reaches its input L.
6. On the turn signal switch, the warning light switch and the horn button, one red wire is marked "inside the switch" and connects to nothing on the original. The black wire J3, joined to the lights ground through a grey plug, carries the same mention.
7. The SC and J5 inputs of the turn and warning controller carry no other marking on the original: SC takes the white wire from the rear controller, J5 the wire from the warning light switch, its RR and LR outputs connect to nothing.
8. Both brake switches carry the same "left / right" label on the original, which does not say which one is on the left.
9. The original diagram shows no throttle.
10. On the original diagram, the LEDs of the tail-wing brake strip are marked "white", like those of the running-light strip.

DOCUMENT

Based on the manufacturer diagram "Schéma électrique DUALTRON Thunder 2" dated 4 June 2021.

Redrawn by FOnzShop on 1 November 2026.

Disconnect the battery before any work.

CONNECTOR PINOUT

Connector	To	Wire
Front controller Motor phases	**Front motor** Connectors: Bullet connectors	Blue · Motor phase Green · Motor phase Yellow · Motor phase
Front controller Controller link	**Rear controller** Controller link Connectors: JST SM plug	Orange White Grey Green Blue Violet
Rear controller Motor phases	**Rear motor** Connectors: Bullet connectors	Yellow · Motor phase Green · Motor phase Blue · Motor phase
Rear controller DC-DC supply	**DC-DC converter** Input Connectors: JST SM plug	Orange · IN+ Black · IN-
Rear controller Lights	**Turn and warning light controller** Signal Connectors: JST SM plug	White · SC
Battery Output	**Internal / external battery switch** Input Connectors: Bullet connectors	Red · Battery + Red · Battery +
Battery Output	**Splice** Connectors: Bullet connectors	Black · Battery −
Battery Output	**Splice** Connectors: Bullet connectors	Black · Battery −
External battery socket (4 pins)	**Internal / external battery switch** External battery	Red · Battery + Red · Battery +
External battery socket (4 pins)	**Splice**	Black · Battery −
External battery socket (4 pins)	**Splice**	Black · Battery −
Internal / external battery switch Output	**Front controller** Battery Connectors: Bullet connectors	Red · Battery +

Connector	To	Wire
Internal / external battery switch Output	**Rear controller** Battery Connectors: Bullet connectors	Red · Battery +
Splice	**Front controller** Battery Connectors: Bullet connectors	Black · Battery −
Splice	**Rear controller** Battery Connectors: Bullet connectors	Black · Battery −
Charging port 1	**Splice**	Red · Charge + Black · Charge −
Charging port 2	**Splice**	Red · Charge + Black · Charge −
Splice	**Battery** Charge Connectors: Bullet connectors	Red · Charge + Black · Charge −
Display	**Rear controller** Display Connectors: JST SM plug	Red Orange Black Green Blue Yellow
Speed limit plug	**Front controller** Speed limit	Grey Grey
ECO / front drive switch	**Front controller** Switch Connectors: JST SM plug	Brown, then violet after the connector Brown, then black after the connector
Brake switch 1	**Rear controller** Brakes 1 Connectors: JST SM plug	Blue, then white after the connector
Brake switch 1	**Splice** Connectors: JST SM plug	Red

Connector	To	Wire
Brake switch 2	**Rear controller** Brakes 2 Connectors: JST SM plug	Blue, then white after the connector
Brake switch 2	**Splice** Connectors: JST SM plug	Red
DC-DC converter Output	**Splice** Connectors: Bullet connectors	Red · +12 V
DC-DC converter Output	**Splice** Connectors: Bullet connectors	Black · Ground
Splice	**Turn and warning light controller** Power Connectors: JST SM plug	Red · Supply +
Driving light switch Input	**Splice** Connectors: Bullet connectors	Red
Driving light switch Output	**Splice** Connectors: Bullet connectors	Orange
Splice	**Inside the switches (J3)** Connectors: JST SM plug	Black
Splice	**Turn and warning light controller** Power Connectors: JST SM plug	Black · Supply −
Horn	**Horn button** Connectors: JST SM plug	Red, then yellow after the connector · Horn
Horn	**Splice** Connectors: JST SM plug	Black · Ground
Turn signal switch	**Turn and warning light controller** Turn signals Connectors: JST SM plug	Blue · Left turn signal Green · Right turn signal
Warning light switch	**Turn and warning light controller** Signal Connectors: JST SM plug	Pink, then red after the connector · J5

Connector	To	Wire
Turn and warning light controller RF	**Warning light 1** Connectors: JST SM plug	Black · LED − Red · LED +
Turn and warning light controller LF	**Warning light 2** Connectors: JST SM plug	Black · LED − Red · LED +
Bus LED controller Power	**Splice** Connectors: JST SM plug	Black Red
Bus LED controller RGB output 1	**Connection plate LED strip** Input Connectors: Board header	Red · LED + Blue · LED data Black · LED −
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 3	**Rear swingarm LED strip (left)** Connectors: Board header	Red · LED + Blue · LED data Black · LED −
Bus LED controller RGB output 4	**Side cover LED strip (right)** Connectors: Board header	Red · LED + Blue · LED data Black · LED −
Connection plate LED strip Output	**Bus LED controller** Input Connectors: JST SM plug	Red · LED + Blue · LED data Black · LED −
Connection plate LED strip Branch 3	**Front swingarm LED strip (right)** Connectors: Board header	Red · LED + Blue · LED data Black · LED −
Front swingarm LED strip (right)	**Front swingarm LED strip (left)** Connectors: Round waterproof plug	Red · LED + Blue · LED data Black · LED −
Stem LED strip (right)	**Connection plate LED strip** Branch 1 Connectors: Board header	Red · +12 V Blue · LED data Black · Ground

Connector	To	Wire
Stem LED strip (left)	**Connection plate LED strip** Branch 2 Connectors: Board header	Red · +12 V Blue · LED data Black · Ground
Rear swingarm LED strip (right)	**Rear swingarm LED strip (right)** Connectors: Round waterproof plug	Red · LED + Blue · LED data Black · LED −
Tail wing LED strip, running light	**Splice**	Red · +12 V Black · Ground
Ground light 1	**Splice** Connectors: JST SM plug	Red Black
Ground light 2	**Splice** Connectors: JST SM plug	Red Black
Driving light 1	**Splice** Connectors: JST SM plug	Red Black
Driving light 2	**Splice** Connectors: JST SM plug	Red Black
Driving light 3	**Splice** Connectors: JST SM plug	Red Black
Driving light 4	**Splice** Connectors: JST SM plug	Red Black
Tail and brake light 1 Running light	**Splice** Connectors: JST SM plug	Red Black
Tail and brake light 1 Brake light	**Brake light connector**	Yellow · Brake light
Tail and brake light 2 Running light	**Splice** Connectors: JST SM plug	Red Black
Tail and brake light 2 Brake light	**Brake light connector**	Yellow · Brake light
Brake light connector	**Front controller** Brake light 1	White · Brake light White · Brake light
Tail wing LED strip, brake light	**Front controller** Brake light 2 Connectors: JST SM plug	Yellow, then white after the connector · Brake light Green, then black after the connector · Ground