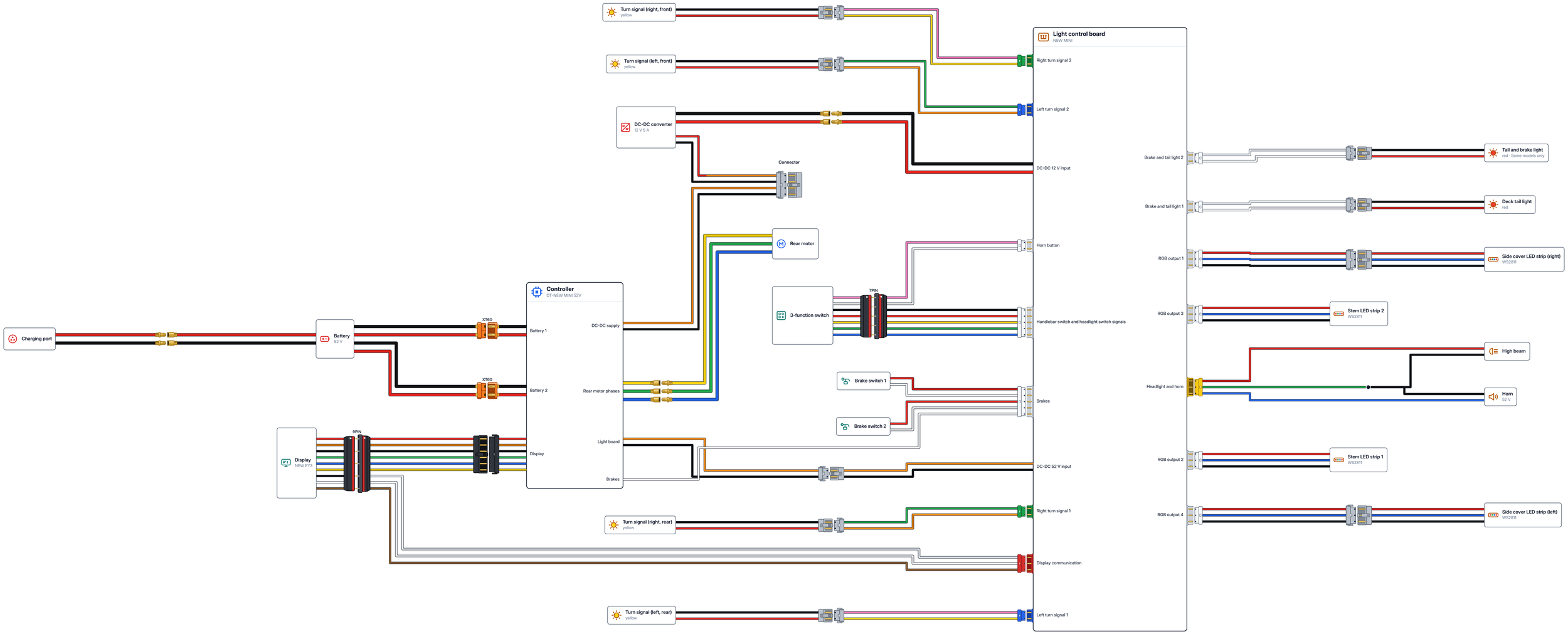
WIRING DIAGRAM

Dualtron Aminia | 52 V

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WIRE COLOURS

- Black BK
- Blue BU
- Brown BN
- Clear TR
- Green GN
- Orange OG
- Pink PK
- Red RD
- White WH
- Yellow YE

CONNECTORS

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

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

NOTES

1. On the original, 52V is printed next to the horn, the light board headlight and horn output and the three connectors going to the controller (horn and headlight supply, DC-DC converter, display).
2. The headlight and the horn are drawn in one housing. Their − terminals are joined together and reach the light board through a single green wire.
3. The horn + wire leaves the horn red, then continues blue to the light board, with no connector drawn in between.
4. On each brake switch, the red wire leaves the switch orange, with no connector drawn in between.
5. Both brake switches carry the same "left / right" label on the original, which does not say which one is on the left.
6. Both pole strips are labelled "left" on the original, none is marked "right".
7. The turn signals, the tail lights and the side cover strips reach the light board through two 9-wire cables, named so on the original.
8. The transparent wires are drawn pale pink on the original, marked "transparent" in Chinese.
9. The display has two black wires and only one reaches the controller. The other reaches the light board transparent: the colour change is hidden under the sleeve, the original does not show where it happens.
10. The two light board connectors marked "identification lights" in Chinese are not connected to anything on the original.
11. The original diagram shows no throttle.

DOCUMENT

Based on the manufacturer diagram "Schéma électrique DUALTRON Aminia single" dated 30 April 2024.

Redrawn by FōhzShop on 1 November 2026.

Disconnect the battery before any work.

CONNECTOR PINOUT

Connector	To	Wire
Controller Rear motor phases	**Rear motor** Connectors: Bullet connectors	Yellow · Motor phase Green · Motor phase Blue · Motor phase
Controller Light board Horn and headlight supply	**Light control board** DC-DC 52 V input Connectors: JST SM plug	Orange Black
Light control board Brakes	**Controller** Brakes Connectors: Board header	5 · White · Brake signal
Battery Output	**Controller** Battery 1 Connectors: XT60	Black · Battery − Red · Battery +
Battery Output	**Controller** Battery 2 Connectors: XT60	Black · Battery − Red · Battery +
Charging port	**Battery** Charge Connectors: Bullet connectors	1 · Red · Charge + 3 · Black · Charge −
Display	**Controller** Display Connectors: Round waterproof plug 9PIN / JST SM plug	Red Orange Black Green Blue Yellow
Display	**Light control board** Display communication Connectors: Round waterproof plug 9PIN / Board header	→ 3 · Black, then clear after the connector → 2 · White → 1 · Brown
DC-DC converter Input	**Connector**	→ 2 · Red, then orange · IN+ → 1 · Black · IN−

Connector	To	Wire
DC-DC converter Output	**Light control board** DC-DC 12 V input Connectors: Bullet connectors	Black · Ground Red · +12 V
Connector	**Controller** DC-DC supply	2 · Orange 1 · Black
3-function switch	**Light control board** Horn button Connectors: Round waterproof plug 7PIN / Board header	→ 2 · Pink → 1 · White
3-function switch	**Light control board** Handlebar switch and headlight switch signals Connectors: Round waterproof plug 7PIN / Board header	→ 5 · Black → 4 · Red → 3 · Yellow → 2 · Green → 1 · Blue
Brake switch 1	**Light control board** Brakes Connectors: Board header	→ 2 · Red · +12 V → 4 · White · Brake signal
Brake switch 2	**Light control board** Brakes Connectors: Board header	→ 1 · Red · +12 V → 3 · White · Brake signal
High beam	**Light control board** Headlight and horn Connectors: Board header	→ 1 · Red · LED +
High beam	**Splice**	Black · LED −
Horn	**Light control board** Headlight and horn Connectors: Board header	→ 2 · Blue · Horn
Horn	**Splice**	Black · LED −

Connector	To	Wire
Splice	**Light control board** Headlight and horn Connectors: Board header	→ 3 · Green · LED −
Turn signal (left, front)	**Light control board** Left turn signal 2 Connectors: JST SM plug / Board header	→ 2 · Black, then green after the connector · LED − → 1 · Red, then orange after the connector · LED +
Turn signal (left, rear)	**Light control board** Left turn signal 1 Connectors: JST SM plug / Board header	→ 2 · Black, then pink after the connector · LED − → 1 · Red, then yellow after the connector · LED +
Turn signal (right, rear)	**Light control board** Right turn signal 1 Connectors: JST SM plug / Board header	→ 2 · Black, then green after the connector · LED − → 1 · Red, then orange after the connector · LED +
Turn signal (right, front)	**Light control board** Right turn signal 2 Connectors: JST SM plug / Board header	→ 2 · Black, then pink after the connector · LED − → 1 · Red, then yellow after the connector · LED +
Tail and brake light	**Light control board** Brake and tail light 2 Connectors: JST SM plug / Board header	→ 2 · Black, then clear after the connector · LED − → 1 · Red, then white after the connector · LED +
Deck tail light	**Light control board** Brake and tail light 1 Connectors: JST SM plug / Board header	→ 2 · Black, then clear after the connector · LED − → 1 · Red, then white after the connector · LED +
Side cover LED strip (left)	**Light control board** RGB output 4 Connectors: JST SM plug / Board header	Red · +12 V Blue · LED data Black · Ground
Side cover LED strip (right)	**Light control board** RGB output 1 Connectors: JST SM plug / Board header	Red · +12 V Blue · LED data Black · Ground
Stem LED strip 1	**Light control board** RGB output 2 Connectors: Board header	Red · +12 V Blue · LED data Black · Ground
Stem LED strip 2	**Light control board** RGB output 3 Connectors: Board header	Red · +12 V Blue · LED data Black · Ground