JR Hokkaido Kiha 261 Diesel Express Car

Introduction of
Free Japanese DCC Diesel Sound Data
Intended to ESU LokSound5 series

1. Introduction of kiha 261

JR Hokkaido Kiha 261(https://en.wikipedia.org/wiki/KiHa_261_series) is a standard diesel express car in Hokkaido, JAPAN. Kiha 261 is manufacturing from 1998. The diesel engine is DMF13HZA which is Japanese train standard engine type. JRE Kiha 110 and the other diesel car have same type engine. This engine sound is very exciting, suitable for model railway! In 2020, Kiha 261 is increasing in Hokkaido railway. Kiha 261 works as Hokuto, Tokachi, Ozora and so on. When you visited to Hokkaido, you can see these diesels express car. Our demonstration youtube video is the following.

Kiha261 DCC Sound Demonstration video
https://www.youtube.com/watch?v=3GijbgeEzH0

2. About OPEN SOUND DATA

OPEN SOUND DATA (https://desktopstation.net/sounds/) is the project which distributes Japanese DCC Sound data for free of charge and customizable. We aim to provide great DCC Sound life for Japanese train model railway users and the other country's companions. We're providing 25 over Japanese train sounds for free.
Also, these sound data are customizable. You can modify this sound data for your interest and use. For example, open and close door sound can exchange the other type sound very easily.

Kiha261 DCC Sound Data for ESU LokSound5 series
https://desktopstation.net/sounds/osd23.html

3. Model railway products with regard to Kiha 261

Scale	Manufacturer	Article No.
HO 1/80	Tomix	HO-9047, HO-9097
N 1/190	Microace	A8673
N 1/190	Tomix	Old Color 98263, New Color 98232, 98233

4. Functions

F0	Head / Tail light
F1	Sound ON with AUX1 room light
F2	Electronic horn
F3	Short horn
F4	ATS breaking / ATS check
F5	Emergency Break
F6	N/A
F7	Volume Adjustment (5 levels)
F8	Rail Joint sound
F9	Diesel Engine Test
F10	Fringe Sound
F11	Officer's Departure Buzzer
F12	Door Open / Close with Hand whistle*
F13	Door Open / Close with Bell 1*
F14	Door Open / Close with Bell 2*
F15	Announcement attention
F16	Announcement next station

* If door opened, this decoder does not run until door closed.

5. Programming decoder

OPEN SOUND DATA is based on ESU's LokSound 5 series.
You need ESU's LokProgrammer (53451, 53452) which is
sound programming device and software for Windows OS.

ESU LokProgrammer (Hardware)
http://www.esu.eu/en/products/lokprogrammer/
ESU LokProgrammer (Software)
http://www.esu.eu/en/downloads/software/lokprogrammer/
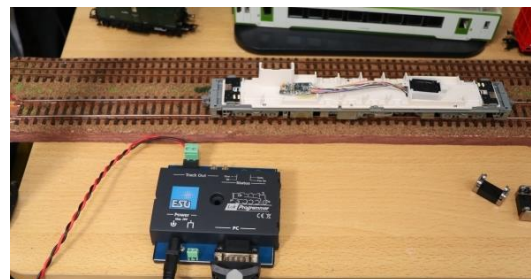
6. Supporting Items for customizing Japanese Non-DCC train model railway

Almost every Japanese train model railway does not support DCC. It works only with analog DC. Please use the following items to assemble DCC Decoder.

- DesktopStation ExpBoard Next18 for KATO HO (***Not supported Tomix and Microace Kiha 261***)
  This board supports Japanese famous Model Railway manufacturer KATO's HO train. This board can replace the train's weight metal. You can easily assemble DCC decoder without complex wiring and soldering.

  https://desktopstation.net/wiki/doku.php/expboardnext18
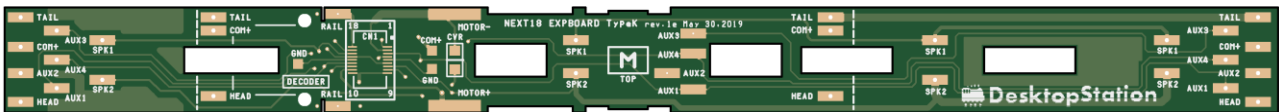
- DesktopStation ExpBoard Next18 for General HO
  This board is general purpose use Next18 Adapter board for N scale and HO(1/80) scale model railway.

  Product url
  https://desktopstation.net/wiki/doku.php/expboardgeneral
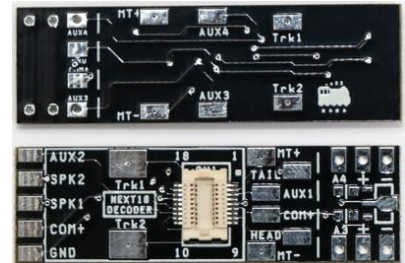
- TRAINO's ExpBoard Next18 EC-Slim(N)
  - Economy kit 1980JPY (incl 5pcs board, not soldered Next18 Connector)
  - Standard kit 1380JPY (incl 2pcs board, soldered only Next18 Connector)
  - Easy Kit 1980JPY (incl 1pcs board, soldered Next18 Connector and the other parts)

  Manufacturer's URL https://desktopstation.net/wiki/doku.php/expboardecn
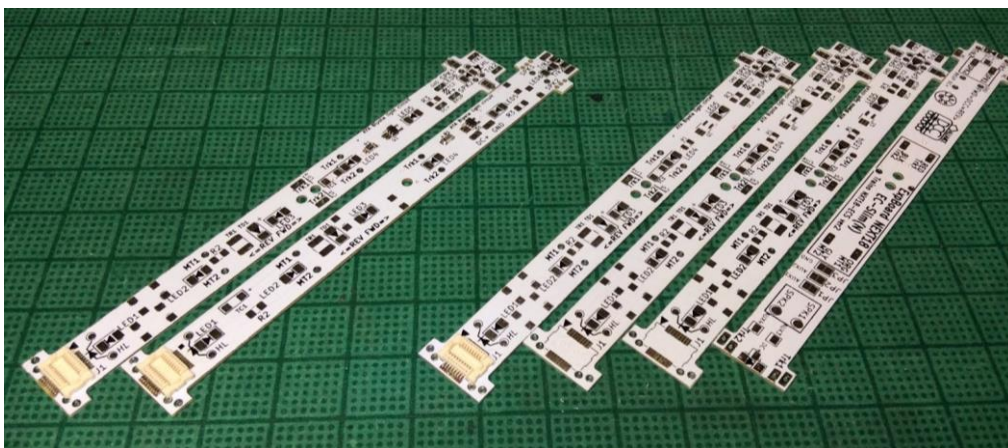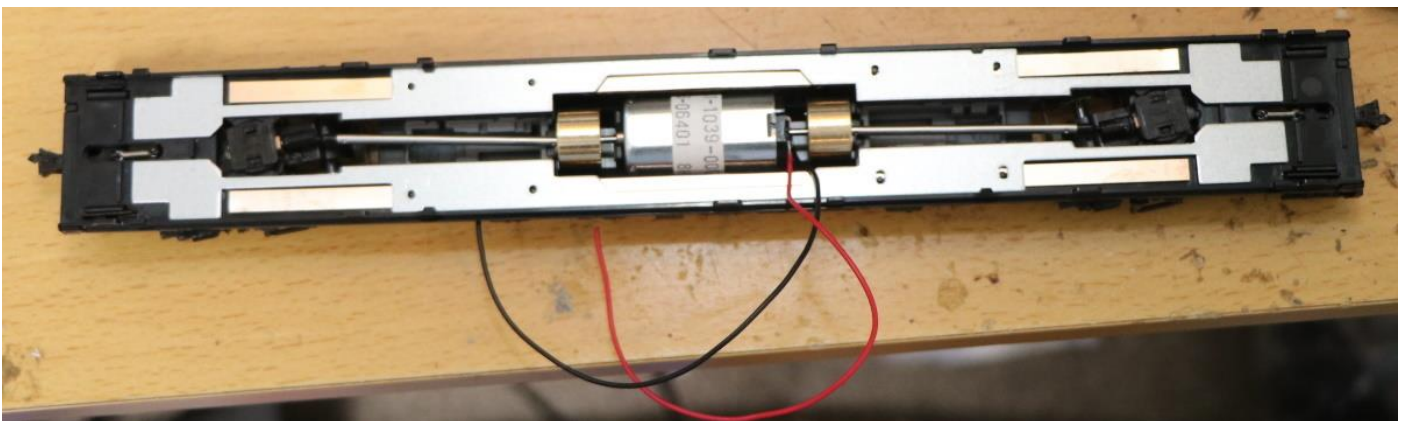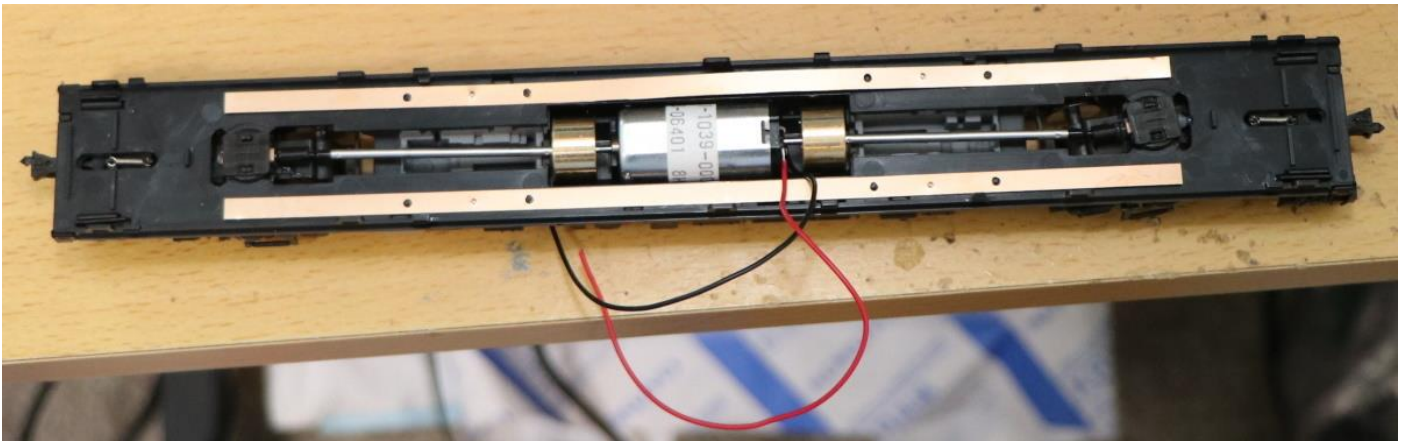
7. Example of assembling Tomix HO kiha 261
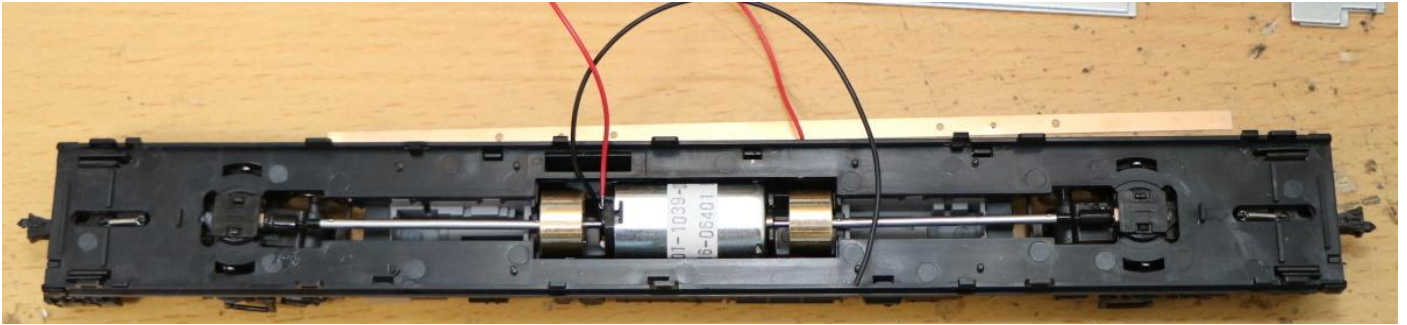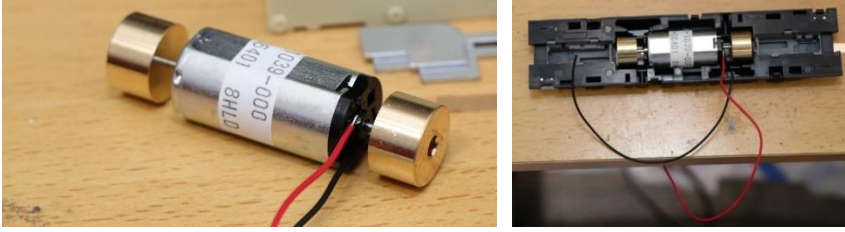
This chapter describes how to assemble ESU LokSound5 micro decoder to Tomix's HO 1/80 scale 16.5mm gauge kiha 261.
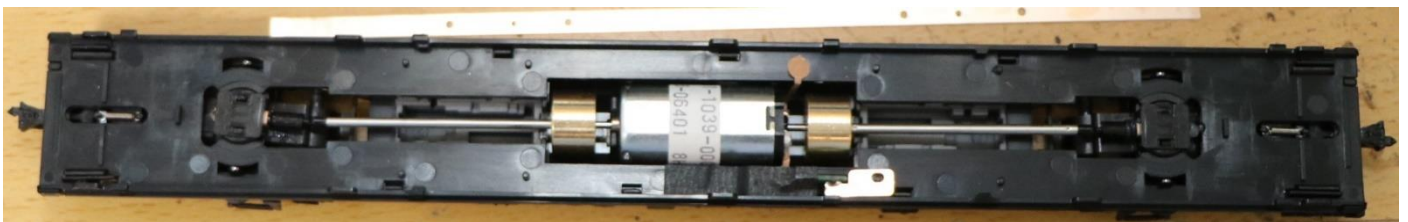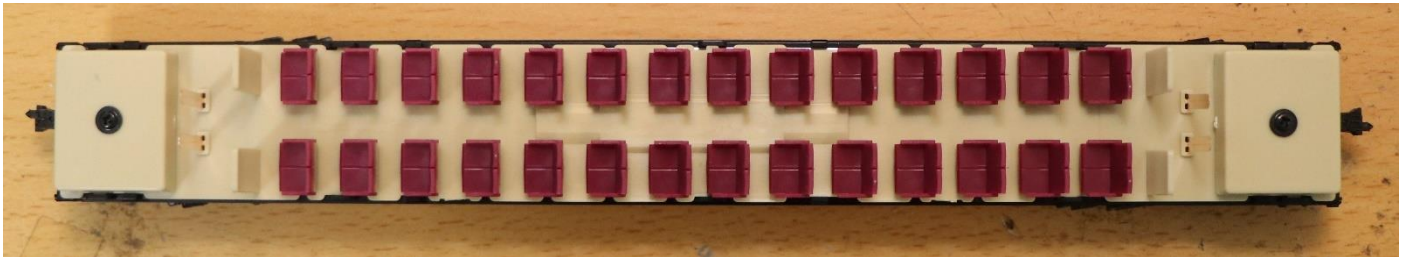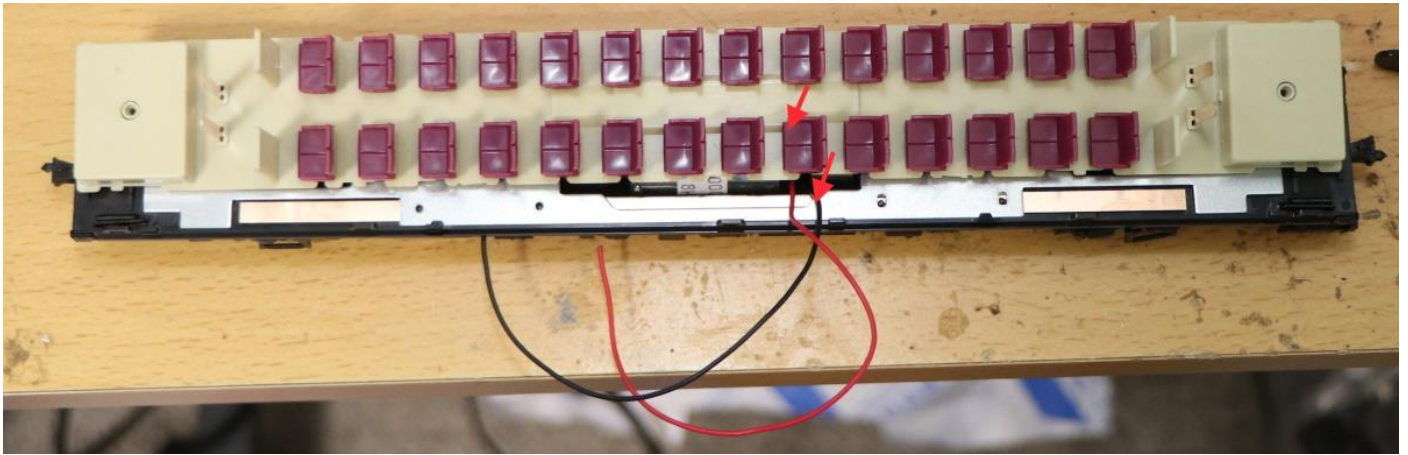

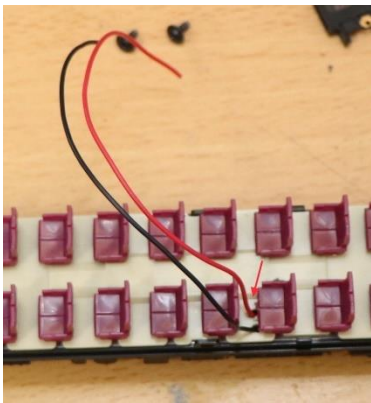Remove cupper board using soldering iron.

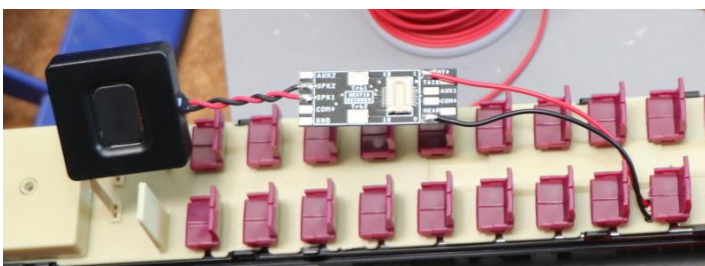Solder wires and motor pins. Then set motor and floor parts.

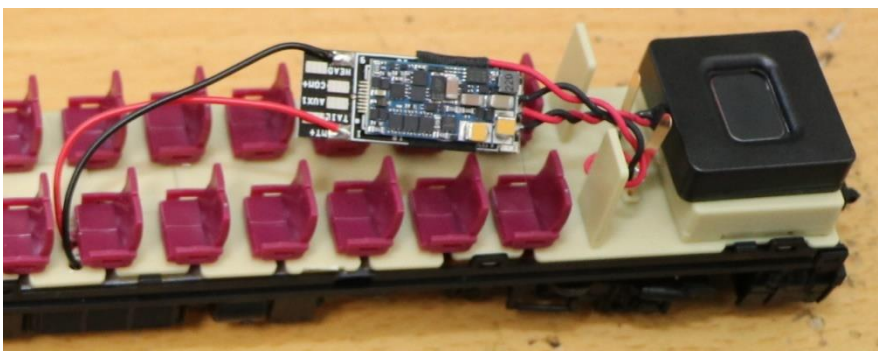Check wire position and seat parts. After that, make a hole.

Pull up motor wires from bottom side.

Solder ExpBoard Next18 for General HO(https://desktopstation.net/wiki/doku.php/expboardgeneral) and PUI Audio's ASE02506MS-LW90-DSM-R Speaker in this example.

LokSound5 micro is assembled.

Please place the decoder boards to hidden space.

That's all!

Photo by DesktopStation

8. Example of assembling Microace N kiha 261

This example uses TRAINOS's ExpBoard EC-Slim which is Next18 adapter board intended to N scale model railway.
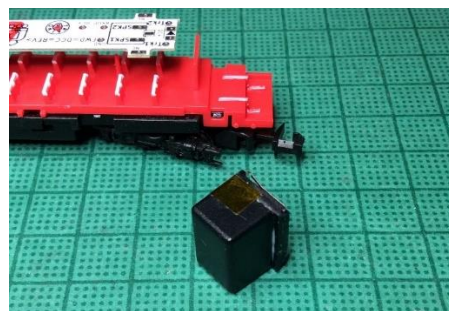

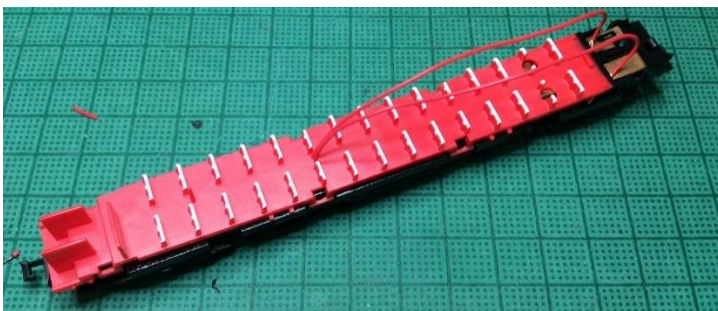Remove motor parts. Please note not to bend holding pins of motor.
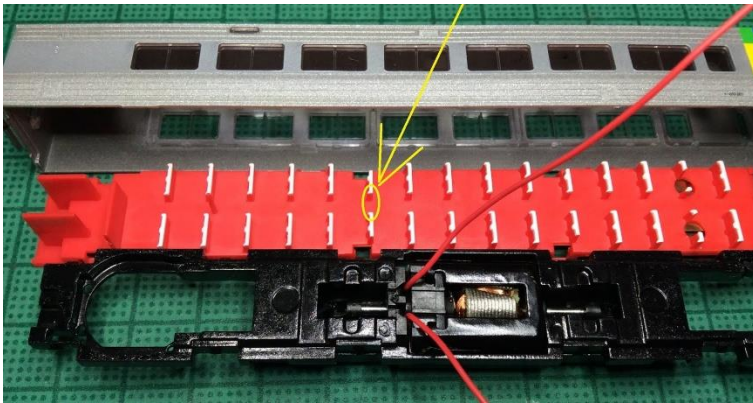

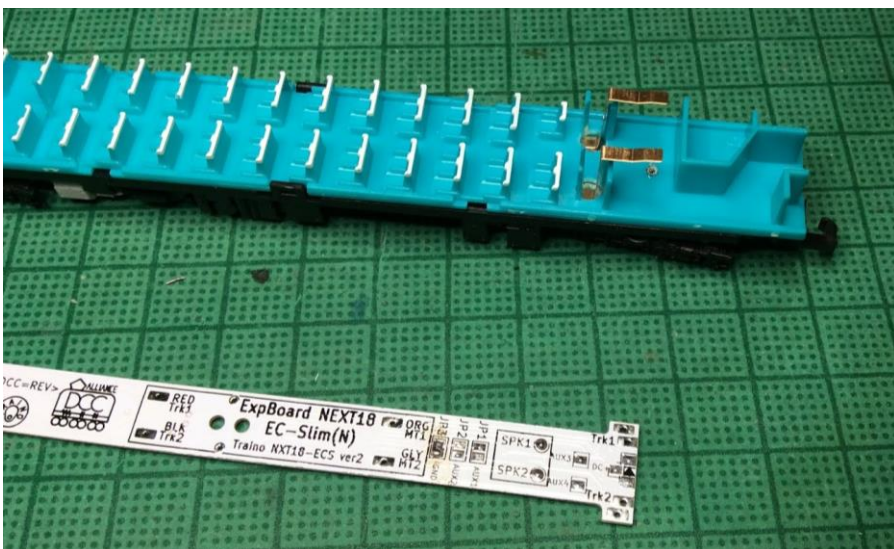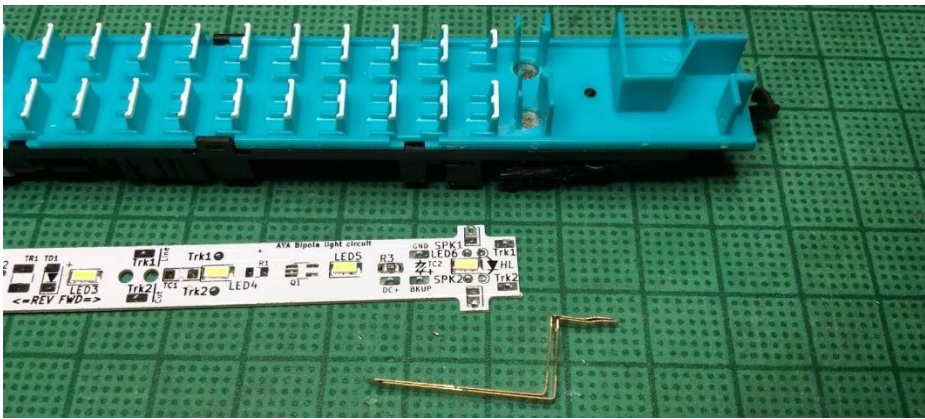Solder both wires to motor holding pins.

Set holding pins to motor.

Make a 1mm hole to go through motor wires at the yellow arrow point.

Let's start T car to add DCC light board.

You can buy TRAINO's ExpBoard Next18 EC-Slim(N) at the following web shop.

DesktopStation Shop https://desktopstation.net/shop/ (International Shipping is available)
Nagoden Web Distribution https://nagoden.cart.fc2.com/

Photo by TRAINO.

9. About Dektop Station
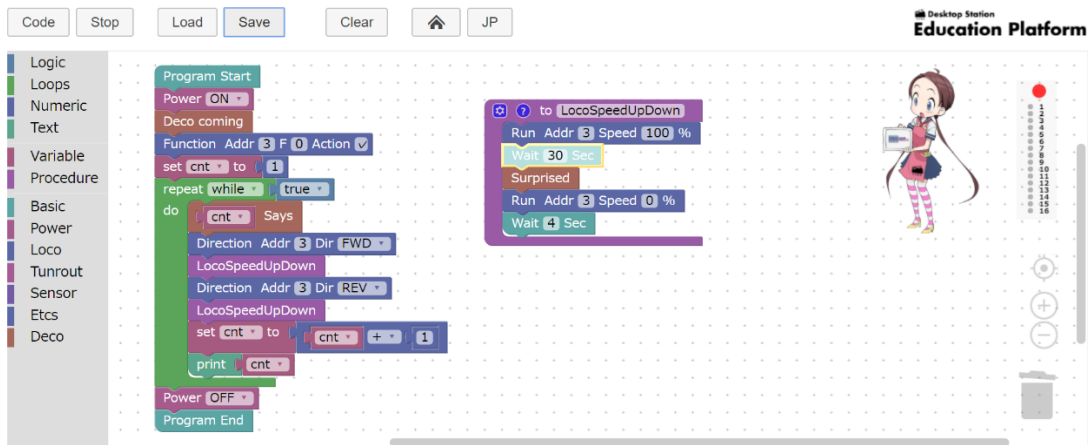
Desktop Station (https://desktopstation.net/) is a manufacturer of open hardware and computer-based model railway system and solution. We support DCC and Marklin digital locomotives and decoders, accessories.

DSair2 and DSmain Arduino based DCC/MM2 digital command station system
(https://desktopstation.net/wiki/doku.php/dsair2_ukeng)

DSair2's Education Platform Software working on internet browser
(https://desktopstation.net/wiki/doku.php/educationplatform)