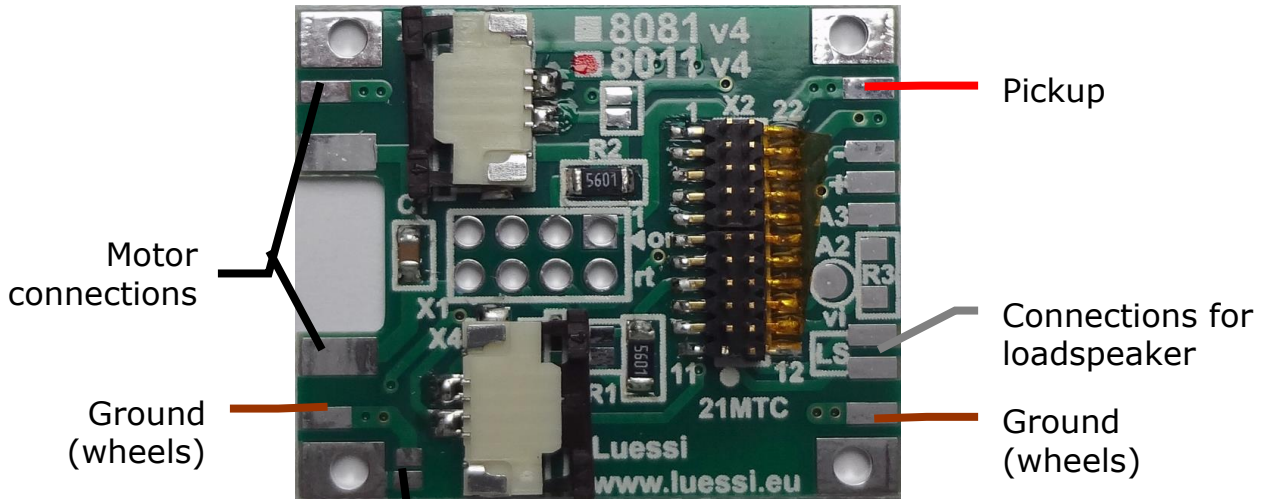
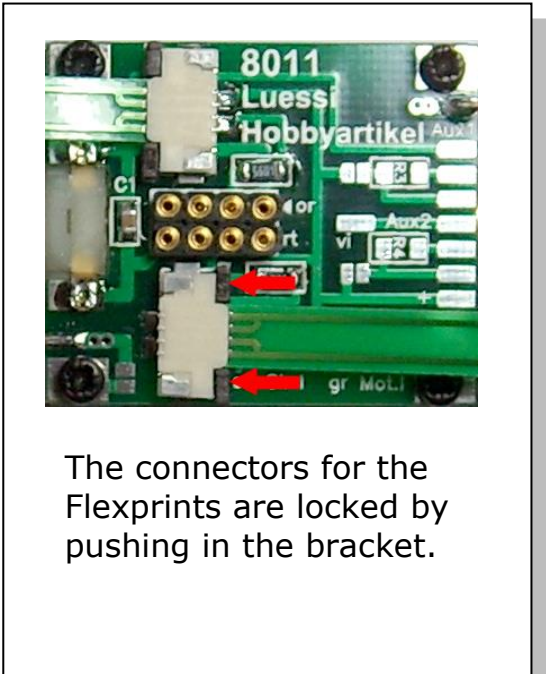


# PCB for decoder installation in Märklin locomotives, item 8011mtc v4



The values of the series resistors for the LEDs are 5.6 kΩ

Set soldering point here to connect wheels to housing



**Other connections:**

- Decoder Plus (+)
- Decoder minus (-)
- Loudspeaker (LS)
- Aux2 (A2)
- Aux3 (A3), resistor R3 required

After removing the Flexprint connectors, the PCB can be fitted with the light modules 8082.

**Pin assignment mtc21 Connector:**

		21MTC		Marklin Colours		
Hall sensor 1		1	22	<span style="background-color: red; width: 15px; height: 10px; display: inline-block;"></span>	Pickup, Pantograph	
Hall sensor 2		2	21	<span style="background-color: brown; width: 15px; height: 10px; display: inline-block;"></span>	Wheels, Ground	
Aux 6 (L)		3	20	<span style="background-color: purple; width: 15px; height: 10px; display: inline-block;"></span>	DC (-) Functions	
Aux 4 (L)		4	19	<span style="background-color: green; width: 15px; height: 10px; display: inline-block;"></span>	Motor +	
Train bus Clock		5	18	<span style="background-color: blue; width: 15px; height: 10px; display: inline-block;"></span>	Motor -	
Train bus Data		6	17		Aux 5 (L) / Motor (3)	
Rear light	<span style="background-color: yellow; width: 15px; height: 10px; display: inline-block;"></span>	7	16	<span style="background-color: orange; width: 15px; height: 10px; display: inline-block;"></span>	DC (+) Functions	
Front light	<span style="background-color: gray; width: 15px; height: 10px; display: inline-block;"></span>	8	15	<span style="background-color: red; width: 15px; height: 10px; display: inline-block;"></span>	Aux. 1	
Loudspeaker 2	<span style="background-color: brown; width: 15px; height: 10px; display: inline-block;"></span>	9	14	<span style="background-color: green; width: 15px; height: 10px; display: inline-block;"></span>	Aux. 2	
Loudspeaker 1	<span style="background-color: brown; width: 15px; height: 10px; display: inline-block;"></span>	10	13	<span style="background-color: yellow; width: 15px; height: 10px; display: inline-block;"></span>	Aux. 3 (L)	
Index pin		⊗	12		Vcc +5V Processor	