

This description only works from update 15816.
First a new controller needs to be set in Rocrail\
Rocrail Properties > Controller select in New window : DUMPER and press ADD then OK.
Select controller and press Properties.
select used COMport 9600 bd and hardflow to none.
Press oK, save settings and close Rocrail.
Start Rocrail again.

In Arduino there are 3 outputs available for total 180 leds.

In Nano they are configured like this as
D3 > Leds 1 to 60
D4 > Leds 61 to 120
D5 > Leds 121 to 180

=== Command protocol for led control ===

Command structure is like this :

°, x, y, z,#
\\

Where ° can be according to the list below.

^ command \\ all capitals! ^ result ^

R	red
G	green
B	blue
W	white
A	old white
C	aqua
K	darkorange
P	peachpuff
F	fuchsia
M	magenta
I	ivory
L	gold
O	orangered

==== A few examples ====

led 3-51 red : R,3,51,51,#
Leds 7,44,59 green : G,3,44,59,#
switch off led 6-21 *) : o,6,21,#
switch off led 41 and 55 *) : o,41,55,#
dim ledstrips to 10% *) : d,10,#
*) these are general commands

==== different type of ledstrips====

Ledstrips are available with different type of internal chips.

This has to be set-up once in the Arduino nano.

Setting will be stored in Eeprom.

WS2812B : i,1,#

WS2812 : i,2,#

TM1803 : i,3,#

====predifined different colours====

Three colours can be pre definend in the arduino nano\\

The command for that is x,a,b,c,#

Where X can be x, y or z

a, b, c present the values below.

	R	G	B	
Orange		255	165	80
OrangeRed	255	69	80	
Orchid		167	13	214
PaleGoldenrod		238	232	138
PaleGreen	152	251	185	
PaleTurquoise		175	238	238
PaleVioletRed		219	112	9
PapayaWhip	255	239	253	
PeachPuff	255	218	171	
Peru	205	133	83	
Pink	255	192	12	
Plaid		204	85	83
Plum	221	160	13	
PowderBlue	176	224	14	
Purple		128	0	8
Red	255	0	0	
RosyBrown	188	143	248	
RoyalBlue	65	105	158	
SaddleBrown		139	69	81
Salmon		250	128	7
SandyBrown	244	164	70	
SeaGreen	46	139	181	
Seashell	255	245	94	
Sienna		160	82	34
Silver		192	192	12
SkyBlue	135	206	238	
SlateBlue	106	90	172	
SlateGray	112	128	9	
Snow	255	250	175	
SpringGreen		0	255	247
SteelBlue	70	130	43	
Tan	210	180	72	
Teal	0	128	8	
Thistle	216	191	253	
Tomato		255	99	52
Turquoise	64	224	13	
Violet		238	130	46
Wheat		245	222	235
White		255	255	255
WhiteSmoke	245	245	95	
Yellow		255	255	240
YellowGreen		154	205	211

Example for pre defined colour

```
set colour x for led 4 to 25 : X,4,25,#  
set colour z for led 24      : Z,24,#
```

Settings in Rocrail.

Each output can also activate this led controller.
This shows the control of all leds to dim to 10% when switch is ON,
and to dim to 50% when switch is off.

The screenshot shows the 'Output dim 10% (17/18)' configuration window in the Rocrail software. The window has four tabs: 'Index', 'General', 'Interface', and 'Color', with 'Interface' currently selected. The configuration fields are as follows:

- Interface ID:** led
- Bus:** 0
- UID-Name:** 0x00000000
- Protocol:** Default
- Topic:** (empty)
- Address:** 0
- Port:** 1
- Gate:** red (selected), green
- Parameter on:** 0, d,10,#
- Parameter off:** 0, d,50,#
- Value:** 1
- Delay:** 0

Options section:

- Switch
- Invert
- Blink
- Color
- Track plan color

Accessory: Accessory

Type: (empty)