TestResultaten

Test 1: Basis 31 LEDs vermogen test

31 LEDS

intensiteit	verwachte spanning	gemeten spanning	stroom	Vermogen
rood 25%	5V	4.5V-4.6V	73mA	337mW
rood 50%	5V	4.5V-4.6V	113mA	615mW
rood 75%	5V	4.5V-4.6V	194mA	895mW
rood 100%	5V	4.5V-4.6V	253mA	1.154W
wit 25%	5V	4.5V-4.6V	221mA	1.02W
wit 50%	5V	4.5V-4.6V	381mA	1.756W
wit 75 %	5V	4.5V-4.6V	544mA	2.5W
wit 100%	5V	4.5V-4.6V	734mA	3.376W

ESP:

ESP verbruik
3.3V 26mA 97mW

Real time clock is van internet op controller met +- 0.5s delay en van mµ naar ledstrip is geen visueel verschil

Total power consumption calculations:

Color - Brightness - ALL3
MAX MAX MAX
(734mA + 26mA)/ 31 * 30 * 5 = 3,68A voor 1 ledstrip

Conclusion:

We can conclude out of a small scale test we have a power consumption of ± 4A / ledstrip. (On full power) So our 5A power supply is more than enough knowing that we will never illuminate the whole ledstrip showing the time.