

NEB! TWONDER™

BILL OF MATERIALS
PROJECT: RGBSABER
VERSION: 1.5

RGBSaber_Control							
Description	Qty	Value	Package	Manufacturer	Manufacturer Part #	Supplier	Supplier Part #
Microcontroller	1		SSOP-28	Microchip	PIC18F2221-I/SS	DigiKey	PIC18F2221-I/SS-ND
DC/DC Converter	1		Through Hole	Murata Power Solutions	OKR-T/3-W12-C	DigiKey	811-2115-5-ND
Switching Transistor	3		SOT-223	Zetex Semiconductor	FZTA14TA	DigiKey	FZTA14CT-ND
Feedback Resistor	1	250Ω	1206				
Red BJT Base Resistor	1	6.67kΩ	1206				
Red BJT Base Resistor	1	6.67kΩ	1206				
Green/Blue BJT Base Resistor	2	3.3kΩ	1206				
Pull-up Resistor	2	10kΩ	1206				
Bulk Capacitor	1	100μF	Electrolytic				
Decoupling Capacitor	2	0.1μF	0805				
Decoupling Capacitor	2	0.01μF	0805				
Programming Header	1		Male Header, 5 pin				
Peripheral Board Header	1		MTA100-7	Tyco Electronics		DigiKey	640456-7
Battery Header	1		MTA100-2	Tyco Electronics		DigiKey	640456-2
Luxeon LED Header	1		MTA100-4	Tyco Electronics		DigiKey	640456-4

RGBSaber_Periph1 (Slide Potentiometer Style)							
Description	Qty	Value	Package	Manufacturer	Manufacturer Part #	Supplier	Supplier Part #
Slide Potentiometer	1	10kΩ	Through Hole	Bourns			
Tactile Switch SP NO	1		6mm x 6mm				
RGB Indicator Common Anode	1		Discrete 5mm				
Peripheral Board Header	1		MTA100-7	Tyco Electronics			640456-7

RGBSaber_Periph2 (Rotary Potentiometer Style)							
Description	Qty	Value	Package	Manufacturer	Manufacturer Part #	Supplier	Supplier Part #
Rotary Potentiometer	1	10kΩ	Through Hole	Bourns			
Tactile Switch SP NO	1		6mm x 6mm				
RGB Indicator Common Anode	1		Discrete 5mm				
Peripheral Board Header	1		MTA100-7	Tyco Electronics			640456-7

Other								
Description	Qty	Value	Package	Manufacturer	Manufacturer Part #	Supplier	Supplier Part #	
Ribbon Cable 28 AWG	1 ft							
Peripheral Cable Plug	2		MTA100-7	Tyco Electronics		DigiKey	3-640443-7	
Battery Pack Plug	1		MTA100-2	Tyco Electronics		DigiKey	3-640621-2	
Luxeon LED Plug	1		MTA100-4	Tyco Electronics		DigiKey	3-640621-4	
7.4V Li-Ion Battery Pack								
2.1mm DC Barrel Jack								
SPST Power Switch	1							
Luxeon LED: Red	1		3mm x 4.5mm	Phillips		LuxeonStar	LXM2-PD01-0050	
Luxeon LED: Green	1		3mm x 4.5mm	Phillips		LuxeonStar	LXML-PM01-0070	
Luxeon LED: Royal Blue	1		3mm x 4.5mm	Phillips		DigiKey	LXML-PR01-0350	
MCPCB LED Tri-Star Base	1			LuxeonStar		LuxeonStar	LXB-RT20B	
Carclo Tri-Lens 22deg	1			Carclo Performance Plastics		LuxeonStar	10506	