

**LED Matrix Dual Hourglass
Bill of Materials**

Part ID	Qty	Part Description
U1	1	ATmega328P[B]
U2,U3,U6,U7	4	8x8 R/G LED matrix
U4,U5,U8,U9	4	HT16K33 LED driver
U10	1	MPU-6050 module
D1,D2,D3	3	BAS20 diode
Y1	1	16MHz crystal
C1,C3,C4,C7,C9,C13,C14	7	0.1uF capacitor
C2,C8,C10,C13,C15	5	10uF capacitor
C5,C6	2	22pF capacitor
R1,R2,R3	3	39K resistor
R4	1	10K resistor
SW1	1	Push button
SW2	1	Push button (small)
RV1	1	10K potentiometer
PCB	1	PCB K505A
ENCLOSURE - FRONT	1	3D Printed
ENCLOSURE - BACK PLATE	1	3D Printed
ENCLOSURE - MOUNTING RING	1	3D Printed
ENCLOSURE - BATTERY HOLDER	1	3D Printed
ENCLOSURE - CHARGER WINDOW	1	3D Printed
BATTERY	1	Lilon 405585 3000mAh
USB	1	USB jack module
BOOST	1	5V DC-DC Boost module
CHARGER	1	TP4056 charger/switch module
SCREWS	6	Flat head 1/4" #2 machine screw
SCREWS	4	Pan head 1/4" #2 machine screw
SCREWS	6	Pan head 1/4" #2 sheet metal screw
SCREWS	3	Pan head 1/4" #2 machine screw, black
NUTS	3	#2 lock nut
INSERT	12	#2 heat set insert
STABILIZATION CAP	2	1000uF capacitor
INLINE CONNECTOR	2	Battery disconnect wire