

Location	Part Number	Name Part	Link	Price incl. VAT	QTY	Description	Price
Solar charging circuit							
Communica	LM317T	LM317T	https://www.communica.co.za/prc	R9.95		5 Voltage Regulator Module Using LM317T	49,75
Communica	1N4007F	Rectifier Diode	https://www.communica.co.za/prc	R0.44		2 General Purpose Rectifier Diode • DO-41 • Axial • VF @ 0,88	
Communica	BZX85C12V	Zener diode	https://www.communica.co.za/prc	R1.32		2 Leaded Zener Diode • DO-41 • Axial • Ptot= 1.3W • VZ1 2,64	
Communica	HKD 100X5MM ASSTD LEDS-5 COLORS	Multicolour Led	https://www.communica.co.za/prc	R50.00		1 5mm High Bright LED Kit. 20 of each- Red, Green, Blue 50,00	
Communica	CFR25J-220R	220 ohm resistor	https://www.communica.co.za/prc	R0.16		2 Carbon Film Resistor • ¼W • 220Ω • ±5% • Axial, Size : 0,32	
Communica	CF 1/4W 5% 2K	2k ohm resistor	https://www.communica.co.za/prc	R0.07		2 Carbon Film Resistor • ¼W • 2kΩ • ±5% • Axial, Size 2. 0,14	
Communica	KNP5WS 10R 5%	10 ohm resistor	https://www.communica.co.za/prc	R2.59		2 Wire Wound KNP Resistor • 5W • 10Ω • ±5% • Axial, Si 5,18	
Communica	CT6P10K	10k potentiomer	https://www.communica.co.za/prc	R10.81		3 Single turn Cermet Trimmer Potentiometer, Model : Gl 32,43	
communica	HKD S/S	veroboard	https://www.communica.co.za/prc	R17.00		2 HKD S/S PROTOBOARD 8X12CM	34,00
Battery Level Indicator							
Communica	BZX83C2V4	Zener diode	https://www.communica.co.za/prc	R0.58		2 Leaded Zener Diode • DO-35 • Axial • Ptot= 0.5W • VZ1 1,16	
Communica	BZX83C4V7	Zener diode	https://www.communica.co.za/prc	R0.58		2 Leaded Zener Diode • DO-35 • Axial • Ptot= 0.5W • VZ1 1,16	
Communica	BZX83C9V1	Zener diode	https://www.communica.co.za/prc	R0.58		2 Leaded Zener Diode • DO-35 • Axial • Ptot= 0.5W • VZ1 1,16	
Communica	MFR25F-100R	Resistor	https://www.communica.co.za/prc	R0.40		5 Metal Film Resistor • ¼W • 100Ω • ±1% • Axial, Size 2. 2,00	
Reverve Polarity							
Mantech	MF50-100K-F T/B *DBK*	Resistor	https://www.mantech.co.za/Produ	R0.25		2 RESISTOR, AXIAL LEADED, METAL FILM, 1/2W (0.5W), 0,5	
Communica	BZX83C9V1	Zener diode	https://www.communica.co.za/prc	R0.58		2 Leaded Zener Diode • DO-35 • Axial • Ptot= 0.5W • VZ1 1,16	
Mantech	IRF9540NPBF	P-Mosfet	https://www.mantech.co.za/Produ	R20.61		2 MOSFET P-C TO220 100V 23A 0E120	41,22
Buck Converter							
Communica	BZX83C9V1	Zener diode	https://www.communica.co.za/	R0.58		2 Leaded Zener Diode • DO-35 • Axial • Ptot= 0.5W • VZ1 1,16	
Mantech	IRFZ44NPBF	Mosfet	https://www.mantech.co.za/Pr	R10.62		2 MOSFET N-C TO220AB 55V 49A 0E017	21,24
Communica	NE555	555 timer	https://www.mantech.co.za/Pr	R2.52		2 555 TIMER CIRCUIT DIP	5,04
Mantech	EC0410-121K	Inductor	https://www.mantech.co.za/Produ	R2.04		2 WIREWOUND AXIAL INDUCTOR 120uH 0.60A	4,08
Mantech	47UF 63VR WLR	Capacitor	https://www.mantech.co.za/Produ	R1.09		2 Capacitor	2,18
Communica	1NF 100VP5	1nF capacitor 50V	https://www.communica.co.za/prc	R3.05		2 Polyester Film Capacitor Boxed • Lead Space: 5mm • 6,1	
communica	MFR12F-10K	10k resistor	https://www.communica.co.za/prc	R0.35		6 Metal Film Resistor • 1/8W • 10kΩ • ±1% • Axial 2,1	
Communica	1N4148	1N4148	https://www.mantech.co.za/Produ	R10.00		2 HIGH SPEED SIGNAL AXIAL DIODE DO35 100V 10/MO 20,00	
communica	CFR25J-100R	100R resistor	https://www.communica.co.za/prc	R0.16		2 arbon Film Resistor • ¼W • 100Ω • ±5% • Axial, 0,32	
communica	MFR12F-47K	47K resistor	https://www.communica.co.za/prc	R0.35		2 Metal Film Resistor • 1/8W • 47kΩ	0,7
communica	220UF 25VR	220uF 50V resistor	https://www.communica.co.za/prc	R1.21		2 Mini General Purpose Electrolytic Capacitor	2,42
Battery							
Takealot	3.7V Rechargeable battery	3.7V rechargeable lithium ion battery	https://www.takealot.com/3-7v-re	R120.00		1	120,00
communica	HKD LC18650X2 BATT HOLDER	battery holder	https://www.communica.co.za/prc	R11.99		1 2X18650 Battery Holder with Wire Leads	11,99
Takealot	Solar panel	Solar panel	https://www.takealot.com/portabl		229	1 Solar panel	229,00
POWER TOTAL							
							650,03
Camera and Sensing Subsystem							
communica	DHT11	Temperature and Humidity Module	https://www.communica.co.za/prc	R40.00		2 Temperature and Humidity Module	80
DigiKey South Africa	2648-SC0020-ND	RASPBERRY PI ZERO W	https://www.digikey.co.za/en/prod	R283,50		1 RASPBERRY PI ZERO W	283.5

DigiKey South Africa	FIT0701	USB camera for Rpi	https://www.digikey.co.za/en/prod R187,11	1 USB camera module for Rasperry Pi	187.11
PiShop	SC0024	NoIR camera for Rpi	https://www.pishop.co.za/store/ra R316.90	1 raspberrry pi pinoir camera module v2.1	316.9
MicroRobotics	HC-SR501	PIR sensor	https://www.robotics.org.za/HC-SI R27.60	2 PIR sensor	55.2
Bob shop	DS3231	RTC	https://www.bobshop.co.za/ds323 R30	1 DS3231 Real Time Clock (RTC) for f	35
CAMERA/SENSING TOTAL					957.71
CASING TOTAL					300
TOTAL TOTAL					1907.74