Power Storage

2 x 18650 Li-ion cells (3.7V, 2200-3000 mAh, protected type if possible)

1 x 2-slot 18650 battery holder (series wired, with leads)

1 x 2S BMS module (7.4 V Li-ion protection board, ≥5 A rated)

Solar Charging

1 x Solar Panel (9-12 V, 10 W minimum)

1 x TP5100 Charger (set to 2S mode)

Input: 9-12 V from solar.

Output: safely charges your 7.4 V pack.

Voltage Regulation

1 x LM2596 DC-DC Buck Converter (3 A, adjustable)

Set output to 5.00 V for Arduino, HX711, LCD, GPS, sensors.

1 x High-Current DC-DC Buck Converter (≥3 A, set to 4.0-4.2 V) for SIM800L GSM module Example: MP1584EN-based mini buck (3 A burst capable).