**Servo motors**

**TRADE MATRIX**

| Feature | SG90 | MG90S | FS90R |
| --- | --- | --- | --- |
| Rotation | 180° | 180° | 360° (cont.) |
| Torque | 1.2–1.6 kg·cm | 1.8–2.2 kg·cm | 1.5 kg·cm (peak) |
| Voltage | 3.0–7.2 V | 4.8–6.6 V | 4.8–6.6 V |
| Speed @ 4.8V | 0.10 s/60° | 0.10 s/60° | 0.12 s/60° |
| Cost | ₹87 | ₹209 | ₹2500 |
| Weight | 9 g | 13 g | 9 g |

**ELECTROMAGNETS**

| Electromagnet Model | Holding Force (N) | Voltage | Current (A) | Size (mm) | Weight (g) | Power (W) | Cost |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 20x15mm Cylindrical | ~30 | 12V | 0.5 | 20 × 15 | 60 | 6 | Rs 761 |
| Holding 25x20mm | ~50 | 12V or 24V | 1.2 | 25 × 20 | 100 | 14.4 | Rs ~ 336 - 600 |

**Batteries**

| Battery Type | Voltage | Capacity (mAh) | Weight (g) | Max Current Output | Rechargeable | Cost (USD) |
| --- | --- | --- | --- | --- | --- | --- |
| LiPo 2S 7.4V 500mAh | 7.4V | 500 | 30 | 10C (5A) | Yes | Rs ~ 786 |
| 18650 Li-ion Cell | 3.7V | 2600 | 45 | ~5A | Yes | Rs 150 - 300 |
| CR123A (Pair) | 6V | 1500 (combined) | 34 | <1.5A | No | Rs ~600 |
| Li-ion 3.7V 1200mAh | 3.7V | 1200 | 28 | ~2A | Yes | Rs ~230 |