Equipment List for Elephant Detection & Deterrent System (with Coverage Range)

Category	Item	Purpose	Cost (₹)	Coverage Range
Detection Sensors	Camera (AI-enabled / IP Camera)	Detects elephants visually	25,000	30–50 meters
	Thermal Camera	Detects elephants via heat signatures (night/fog)	35,000 – 60,000	100–200 meters
	PIR Sensor (Motion Sensor)	Detects movement in area	1,000 – 2,000	5–12 meters
	Acoustic Sensor / Microphone	Detects elephant calls/trumpets	2,500 – 6,000	300–500 meters
	Ultrasonic Sensor	Measures proximity of elephants	3,000 – 5,000	2–10 meters
Power & Infra	Solar Panel + Battery	Powers sensors & camera	10,000	N/A
	Pole / Mounting Stand	Installs camera & sensors securely	5,000	Height ~3–6m
	Enclosure / Weatherproof Box	Protects electronics from rain & dust	2,000	N/A
	Cables, Connectors, Misc.	Wiring and setup	1,200	N/A
Deterrent Devices	Alarm Siren / Horn	Scares elephants away	1,500 – 3,000	100–200 meters
	Flashing LED / Lights	Visual deterrent, especially at night	1,000 – 2,000	50–100 meters
	Ultrasonic Vibration Device	High-frequency sound elephants dislike	3,000 – 5,000	10–30 meters
	Chili Smoke / Fogger	Smell deterrent elephants avoid	2,000 – 4,000	30–50 meters
Connectivity & AI	IoT Gateway / LoRa / SIM Module	Sends sensor data to cloud	3,000	LoRa: 2–5 km, GSM/4G:

				network dependent
	Cloud + AI Processing	Processes camera & sensor data for alerts	2,400 / year	Unlimited
Labor	Installation & Local Labor	Deploy equipment in field	5,000	N/A