



DS ENGINEERING

Specialty in Design & Automation

Mail Id .: dsengineeringproject@gmail.com

Mob.: +91 80079 79413 / +91 97671 98369

Sr. No	Electricity generation Based	
1.	Pedal powered electricity generation	1. Pedaling setup 2. Electricity Generation. 3. Gear ratio selection
2.	Vertical Axis wind Turbine	1. Use of Wind Energy. 2. Electricity Generation 3. Fabrication of System.
3.	Energy recovery from engine fins	1. Energy Recovery. 2. Electricity Generation. 3. Application Based.
4.	Solar powered	1. Use of Solar Energy 2. Electricity Generation 3. Application Based.
5.	Electricity Generation From Speed Breaker	1. Rack & Pinion Setup . 2. Gear ratio Selection. 3. Electricity Generation.
6.	Steam powered mini Power Plant	1. Steam Generation. 2. Electricity Generation. 3. Application Based.
7.	Electricity Generation Unit For Bicycle	1. Fixture design for unit. 2. Electricity Generation. 3. Measure of Electricity generated.
8.	Hand Powered gear box for Electricity generation	1. Fabrication of gear box 2. Portable Unit. 3. Measure of Electricity generated.
9.	Hydro-Electric Mini power Plant	1. Use of Kinetic Energy. 2. Electricity Generation Setup. 3. Application Based.
10.	Compressed Air Electricity Generation	1. Air Compression & Storage unit. 2. Electricity Generation Setup.



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Sr. No	Agriculture Based	
1.	Ground Nut De-shelling Machine	1. Pedal Operated 2. Motor Attachment 3. Ground-nut Separation unit
2.	Pedal operated High Head Water pumping System.	1. Variable stroke adjustment. 2. Speed ratio Selection. 3. +ve Displacement Pump.
3.	Portable Vegetable Cutter & slicer	1. Slicing of Vegetable. 2. Portable Unit Easy to handle.
4.	Solar/Wind power Irrigation System.	1. Use of Solar /Wind Energy 2. Electricity Generation unit 3. Water pumping using centrifugal DC pump.
5.	Intelligent oil skimming Robot	1. Oil Skimming arrangement. 2. Cleaning Water.
6.	Fabrication of Solar Water Fountain.	1. Use of Solar Energy. 2. Fountain Arrangement. 3. Water pumping Unit.
7.	Fabrication of Solar Seed Dryer	1. Drying chamber 2. Air heating unit
8.	Fabrication of Seed Dryer using Electric heater.	1. Drying chamber 2. Air heating unit 3. Electric heater arrangement
9.	Soil Fertilizing unit using Waste Material	1. Crushing of waste Agri-product. 2. Spreading of crushed material.
10.	Pedal operated fertilizer sprayer unit	1. Pedalling attachment. 2. Spraying unit. 3. Water pumping unit.
11	Flour milling Pedal operated	1. Using Pedalling System 2. Motor adjustment unit. 3. Portable Unit.
12	Robotic Vehicle for Multi-Purpose fertilizer spraying.	1. Robotic Unit . 2. Height adjustment for spraying depending upon crop height.
13	Lawn mover with Ground grass cutting arrangement.	1. Lawn mover 2. Grass cutting arrangement. 3. Portable unit
14	Defective fruit Detection & Separation Unit.	1. Using camera to detect defective piece. 2. Separate the defective in one side. 3. Separate the defective fruits



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Sr. No	Production Based	
1.	U-shape sheet rolling Machine	1. SPM for rolling. 2. Prototype.
2.	Universal crushing machine	1. SPM for crushing waste material. E.g. Paper , cardboard, wood, plastic etc.
3.	Coconut Dehusking	1. De-husking unit. 2. Setup fabrication.
4.	Material handling unit using pneumatic arm	1. Use of compressed air. 2. Accuracy in handling
5.	Potato peeling Unit	1. Pedal operated unit. 2. Capacity 1-2 kg
6.	Advance Sugar cane Juice Extractor M/c	1. Single pass unit. 2. Juice collecting arrangement.
7.	Automation for spring testing Unit	1. Helical spring testing. 2. Deflection measuring using distance sensor.
8.	Automation for spray painting	1. Use of compressed air. 2. Multi-Axis painting arrangement.
9.	Aluminium can crushing & recycling Unit	1. Can Crushing unit. 2. Furnace for melting. 3. Aluminium block.
10.	Waste Paper recycling Unit.	1. Paper Crushing. 2. Pulp formation. 3. Card board formation.
11	Glass Recycling Unit	1. Glass Crushing unit. 2. Furnace for melting. 3. Aluminium block.
12	Motorized wood cutting machine.	1. Fabrication for cutting blade. 2. Cutting adjustment. 3. Fabrication of complete system.
13	Sugar cane surface cleaning M/c.	1. Surface Cleaning unit. 2. Fwd Feeding simultaneously.
14	Press machine.	1.High Power. 2. Portable unit. 3. Application based.
15	Bowling machine.	1. Variable Speed Bowling. 2. Bouncer adjustment.



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		3. Portable unit.
	Production Based	
16.	Leakage testing machine for strainer.	1. High Pressurizing system. 2. Pressure indicator attachment. 3. Portable unit for testing
17.	Pneumatic Press machine	1. Portable unit. 2. Highly precise unit. 3. Application based pressing attachment.
18.	SPM for Drilling	1. Easy positioning. 2. Simple control unit. 3. Reliable system
19.	Automation for profile cutting proto-type	1. Bed Design for multi axis movement. 2. Speed adjustment.
20.	Box transportation using linkage mechanism.	1. Linear box movement. 2. Linkages & setup fabrication.
21.	Semi-Automatic sugarcane Node cutting	1. Linear motion. 2. Cutting of sugar cane. 3. Rotary motion for node visualization.
22.	Magnetic conveyer system for scrap handling.	1. Magnetic conveyer. 2. Collect scrap from shop flour 3. Portable unit.
23.	Advance flour cleaning	1. Gear ratio selection . 2. Cleaning brush attachment. 3. Movable & portable 4. Electricity generation unit.



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Sr. No	Electro-Mechanical Based	
1.	Smart Irrigation System	1. Sense moisture level. 2. ON/OFF water supply. 3. Smart control system.
2.	Smart Parking System	1. Less space max vehicle. 2. Systematic Arrangement. 3. Smart Card system.
3.	Smart spy Robotic Vehicle	1. Spy robot . 2. Terrain Travel. 3. Wireless camera connectivity.
4.	Remote operated gear changing system.	1. Smart gear changing. 2. Simultaneous clutching & gear changing. 3. Gear Shift UP/Down.
5.	Emergency Braking system	1. Obstacle detection. 2. Automatic Braking. 3. Easy Handling.
6.	Automation for bottle filling & capping Unit.	1. Bottle filling. 2. Cap placing. 3. Cap tightening.
7.	Automation for sugar-cane node cutting unit	1. Using Camera node sensing. 2. Actuation of cutting blade. 3. Cutting of node.
8.	Object Sorting System	1. Object sorting 2. Application based for sorting.
9.	Kinematic linkage Robot	1. Linkage design. 2. Low weight. 3. Spy robot.
10.	PCB drilling multi-point using ECU	1. Programming of ECU. 2. Structure Manufacturing



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Sr. No	Solar Based	
1.	Solar/Wind powered hybrid system	1. Electricity generation. 2. Hybrid system. 3. 24 power supply arrangement.
2.	Solar mini Water heater	1. Electricity storage. 2. Water heating.
3.	Solar Air dryer	1. Dehydrating unit. 2. De-moisturizing Unit. 3. Increase Efficiency.
4.	Hydraulic Based Solar Tracking	1. Tracking of Solar panel acc to sun movement. 2. Adjustment of tracking speed.
5.	Solar sprayer pump	1. Fertilizer Unit. 2. Solar operated . 3. Portable Unit.
6.	Solar powered High head reciprocating Pump.	1. High head water pumping. 2. High efficiency. 3. Variable Stroke adjustment.
7.	Solar powered Refrigeration	1. Use of solar energy. 2. Portable unit. 3. Eco-Friendly
8.	Solar powered water desalination	1. Water purification Unit. 2. Use of Solar Energy.
9.	Parabolic Solar System for water heating	1. Use of solar radiation. 2. Water heating > 60°C 3. Increase the effectiveness of system.
10.	Solar powered Tricycle	1. Use of solar energy. 2. Electricity driven. 3. Use of Tricycle for handicap people.
11	Solar Cooker	1. Solar Radiation tracking. 2. Use of Heat energy for cooking.
12	Solar powered Air compressor	1. Solar energy storage in battery . 2. Air compression system.
13	Robotic vehicle solar /wind powered	1. Electricity generation. 2. Hybrid system. 3. Use of Dual power source.