

PRODUCTS - 2010

PEDAL OPERATED WET GRINDER

There are rolling power cuts in the rural India and obesity in the urban India. This product is developed so that people in both these sectors can benefit. This pedal based wet grinder can be operated without electricity and it burns fat from the body. This is a modification of the common household wet-grinder machine. It is run on physical power of the human being.



It is purely mechanical in design and so rugged and robust to suit the rural Indian household. This product was developed by

Gourav Gupta	- 110107031
Prabu Sampath Kumar	- 110107074
Varun Kumar Singh	- 110107030
Asha, T.	- 110107035
Vivek Ranjan	- 110107051

SOLAR TRACKER



The solar tracker is used in solar thermal applications where it is used to continuously point a parabolic solar collector towards the moving sun. Here the solar collector is used to point a model solar trough towards the sun. The shaft is fitted with a worm and gear arrangement which in turn is connected to a stepper motor. The stepper motor is run using a microcontroller.

This product was developed by:

Yalmozhi, S.	- 110107012
Ishan Patwa	- 110107034
Nidal Mustafa	- 110107061
Shailesh Ajmera	- 110107069
Asish Kumar Swain	- 110107080

PORTABLE LAUNDRY DRYER FOR SMALL APARTMENTS

During monsoon months in India, it is very difficult to dry wet clothes in small apartments because of the lack of space. This product makes it possible to dry clothes inside a small apartment overnight. It is space saving and energy saving. Moreover it is collapsible.



This product was developed by:

Farhan Abbas Syed	- 110107054
Pavithra, V.	- 110107007
Arun Ram	- 110107004
Gaurav Abhishek Tigga	- 110107005
Srikanth, D.	- 110107089

LED STRIP LIGHT

This is an energy saving light strip that replaces the conventional four-foot long fluorescent tube light. This uses rows of white LEDs. The LEDs provide a long life time for the strip light, as well as energy savings, while providing the same quantity of light.



This product was developed by:

Adharsh, R.	- 110107015
Sivakumar Sekar	- 110107018
Raghul, R.	- 110107021
Karthikeyan, S.	- 110107029
Viplove Tyagi	- 110107077

DOOR LOCK OPERATED MAINS SUPPLY CONTROLLER

This product automatically cuts off the electricity supply to selected power lines within the house when the main door is locked. So the lights may be turned off while the power to the refrigerator is still on. The connection to the relays on the mains supply is through a wireless link to the receiver. Hence, additional lengthy wiring is not needed while installing this product.



This product was developed by:

Anukruti Chakraborty	- 110107036
Karthik, V.A.	- 110106066
Soumya Aggarwal	- 110107024
Fatema Tuz Zohra	- 110107062
Vani, M.	- 110107088

SMS BASED REPORTING DEVICE

This product intimates about a person reporting at a given location to two different mobile numbers through SMS. The device is attached to a specific location where an authorization or a registration of identity is required like a vault, door, gate, or check point. Upon keying in the correct ID code and two levels of passwords, a message is sent to two preset mobile numbers to receive messages. The device also reports whether a wrong password was entered to alert any attempts of unauthorized entry.



This product was developed by:

Sathish Kumar, M.	- 110107068
Manoj, R.	- 110107067
Saksham Srivastava	- 110107083
Sumeet Kumar, P.	- 110107045
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PUSH-CART MOUNTED SOLAR POWERED FREEZER

This product is a self-contained solution for street vendors of perishable goods such as vegetables, fruits, ice creams, fish, and dairy products. The product harnesses the solar energy freely available outside and runs a deep freezer. All the supporting devices like the solar arrays, power controller, inverter, and batteries are accommodated in the push cart. The push cart is mobile and so the vendors can easily move from one place to another hawking their goods. This product is ideal for a sunny country like India. It saves perishable food and there is no every day recurring cost as in the case of gensets. At night, the product can be plugged to the mains supply if needed.



This product was developed by:

Raghav, V.	- 110107066
Neileswar	- 110107056
Karan, A.	- 110107085
Deepak, J.	- 110107057
Avdesh, K.	- 110107084

WINDOW CLOSER USING A RAIN SENSOR

This product can be used in buildings having a large number of windows exposed to the outside elements and having less number of employees to close them within a short time. This product has a rain sensor. When it rains, the sensor detects the rain and automatically operates the necessary actuators to close the windows. When the rain stops, it automatically opens the windows again. There is a manual over-ride to open or close the window using manually operated controls.



This product was developed by:

Mathangi, V.	- 110107065
Ujjwal Sethi	- 110107081
Pranoy Sahu	- 110107046
Shubam Sharma	- 110107038
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SOLAR POWERED JUICE MIXER FOR OUTDOOR VENDORS

The roadside juice or lassi vendors often find it difficult to get electricity for their juice machines or mixers. This problem is compounded by power cuts during the summer months when their business is at the peak. This product aims to satisfy their needs by capturing the abundant solar energy available freely outside in India. In fact, this product frees the vendors so completely from the grid power, that they can set shop in any remote place where they can find a brisk business.



This product was developed by:

Bharatheeraj	- 110107071
Gokul, M.	- 110107003
Senthil	- 110107075
Puneet Mongia	- 110107044
Mahendra Kumar Verma	- 110107082

TIMED POWER OUTLET

This product supplies power to any electrical appliance connected to it for a desired period of time as set by the user. It has four power outlets with each having an individual timer which can be set by the user. After the time period elapses, a relay inside turns off the power to that particular socket. This cuts off the power to any appliance connected to that socket. The four outlets can be used with different timer settings and after the last socket is turned off, a buzzer sounds and the entire device is turned off. It is portable, easy to use, and the current value left on the timers are shown on digital displays. In addition, the product has surge and spike suppression. This product can be used by households and offices for a wide variety of applications.



This product was developed by:

Avinash, K.	- 110107087
Vignesh, K.	- 110107063
Lajrash Kumar	- 110107027
Sathya Pramod	- 110107073
Rajat Thai	- 110107079