



Smartway Electronics



*Incubation and Support*

# Electronics R&D Start up Company

## • PROTOTYPING



## • MANUFACTURING



## Who we are?

We are an electronic startup company working in the field of Medical Electronics, Embedded system, Micro-electronics, Nano electronics, Internet of Things(IOT) and Robotics and system software related Research & Development, product prototyping and Design servicing.

## Mission and Vision

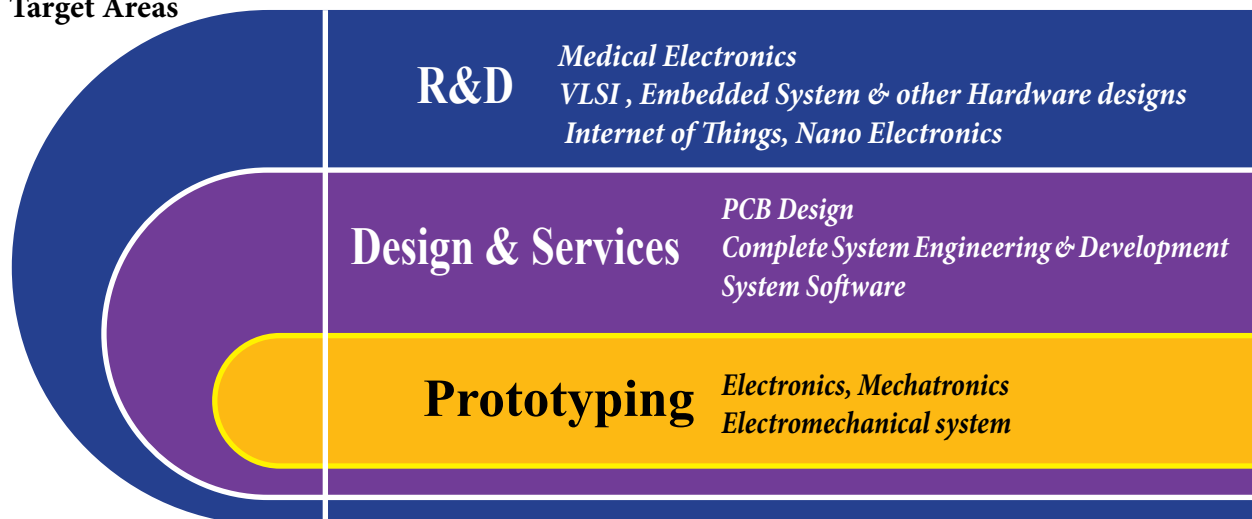
It has been established with an aim to develop center of advanced electronics research & development. At SMARTWAY ELECTRONICS, we take pride in design innovation and accept engineering challenges for developing quality products.

Providing best possible technology Solution is our first goal.

## Foundation

The company was registered as Private limited company under company registration act 2013 of Govt. of India on 8th January 2020 Registration No : U51909BR2020PTC044906. The company is also registered at Bangalore under Karnataka State Shop & Establishment Act Regd. No. 18/192/ce/0320/2021. MSME Regd. No. DPIPP54248

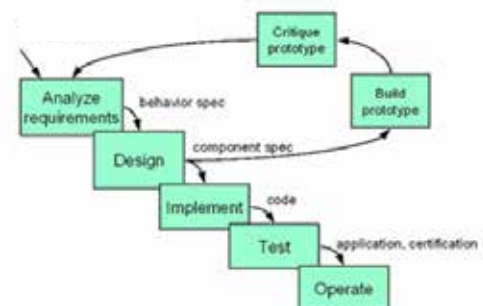
## Target Areas



## Design Services

1. VLSI (FPGA/ASIC), System on Chip(SOC) Based Design and Development
2. Embedded Hardware & Firmware Development
3. Arduino, 8051/AVR/PIC/ARM9, ARM 11 based Design
4. Application Software Development
5. Windows-OS and Linux-OS based Software Development
6. Product Prototyping and Re-engineering
7. Electronics and Electrical Engineering Lab tools and Board Development
8. Power Electronics product design and Development

## Prototyping Model



## Our Design Services Include

Complete Proto-board design: This covers design and development of complete board prototype design as per customer's specifications. Following steps are followed

1. Feasibility analysis
2. Specification Finalization
3. PCB Schematic and Layout
4. Board Assembly, Verification and Testing
5. Board Proto type development

Once Proto type board is developed, the customer need to test and check its performance and working as per their given requirements. After customer's approval, the prototype board goes for mass production.

## PRODUCTS

### Medical Electronics & IOT

## Smart Pulse Oximeter

(Integrated with IR Thermometer)



#### Ver. 1 (Regular)

This is lightweight and compact noninvasive device to measure percentage level of Oxygen in the blood (known as SPO2 level) and also it gives heart rate & Body temperature after putting a finger on the sensor. Result can be viewed on OLED screen and mobile app on Bluetooth interface. This product is very useful for COVID19 patient testing as well as the patient suffering from heart disease. This device has rechargeable battery so that there is no need to plug battery in and out.

This version can also have Internet of things (IOT) technology implemented as per client's requirement of getting patient result data from webservice.



#### Ver. 2 (Telemedicine)

This is lightweight and compact noninvasive device to measure percentage level of Oxygen in the blood (known as SPO2 level) and also it gives heart rate & Body temperature after putting a finger on the sensor. Result can be viewed on pc/mobile through USB interface on Windows application program/Mobile App respectively. This product is very useful for COVID19 patient testing as well as it can be used as one component of telemedicine center.



#### Ver. 3 (ICU)

This is lightweight and compact noninvasive device to measure percentage level of Oxygen in the blood (known as SPO2 level) and also it gives heart rate and body temperature after putting a finger on the sensor. Result can be viewed on pc/mobile through USB interface. This product is very useful for COVID19 patient testing in the ICU.

# Embedded Systems

## Digital Time Switch



These days, people start charging electronic gadget like mobile, laptop, speakers and power banks and forget to make it switched off. As result, over charging and continuous charging may put life of your charging gadget batteries in danger. Similarly, home equipment like common lights/balcony lights, home lights, garden lights sometimes missed to be switched off. Electrical Appliances such as Electric Cookers, Water Heater, Glow Sign Boards, Decorative lighting, Aquariums lights, Air conditioners, and Air coolers needed to be controlled by time. In offices, Banks, ATM centers, etc., there are many Air conditioners running simultaneously unnecessarily that are required to be controlled. Water Tank also starts overflowing because of this missing attitude that sometimes arise catastrophic events. To avoid such issues of unnecessary power consumption, we have developed the Product called "Digital Time Switch" in application specific versions.



**Tekbrains Digital Time Switch Ver. 1** is energy saving micro-controller based time control switches that drives can drive devices (Electrical, Electronic and Electromechanical and mechatronic) on given fixed time which automatically get switched OFF after elapse of given time. For this user can select any of the times between 15 min, 30 min, 1 hour, two hours, and four hours etc for which time period, current will be flowing into the system. After stipulated time, current will get switched off automatically. It can control Maximum 2 units at a time.

**Tekbrains Digital Time Switch Ver. 2** is energy saving micro-controller based time control switches that can drive devices (Electrical, Electronic and Electromechanical and mechatronic) between users programmable ON TIME which OFF time. It will drive the machines as per given time everyday automatically. In this, user can set multiple on-times and off-times through the keys which will be shown on LCD display. This system can control multiple devices simultaneously.

## Water Overflow Controller Ver. 1 (for starter)



Water Overflow Controller ver1 (for starter):

This product is related to the solution of water overflow from water tank in every houses when someone switched ON the starter. This device will automatically make started Switched OFF when water gets filled up in the water tank.

This device will be connected to Starter and water Tank. Two wires from water tank will be connected to our device. When water tank becomes full, it will send signal to the device which will make Starter Switched OFF automatically.

Water Overflow Controller ver2 (for Normal Motor, Tullu pump):

This product is related to the solution of water overflow from water tank in every houses when someone switched ON the starter. This device will automatically make started Switched OFF when water gets filled up in the water tank.

This device will be connected to Starter and water Tank. Two wires from water tank will be connected to our device. When water tank becomes full, it will send signal to the device which will make Starter Switched OFF automatically.

# Motor Controller

## GSM Based Starter motor controller

This is a microcontroller based programmable time switch which can drive any electrical machine (like motor, fan, ac, fridge, LED, Cooler, etc.) for particular time for time bound operations. The controller will automatically drive the motor on the ON TIME given by the user as well as make it OFF when it reaches OFF TIME. . If power gets OFF and comes again within the controller ON TIME period, then the system will automatically START. Since our controller also has a GSM module inside. Hence, in any case, If power didn't come in the stipulated time period, user/Ward members can also drive the motor by sending SMS through fixed mobile no.

## GSM and Sensor based Smart Starter motor controller

This is a microcontroller based programmable time switch which can drive any electrical machine (like motor, fan, ac, fridge, LED, Cooler, etc.) for particular time for time bound operations. It has two sensors inside the water tank on the TOP and at the Bottom and the GSM Module in the controller system. The controller will automatically drive the motor on the ON TIME given by the user as well as make it OFF when it reaches OFF TIME. During the stipulated controller ON TIME Period, both sensors become active which will make the motor Automatically OFF when water is FULL and Automatically ON when water is EMPTY in the water tank. If power gets OFF and comes again within the controller ON TIME period, then the system will automatically START. Since our controller also has a GSM module inside. Hence, in any case, If power didn't come in the stipulated time period, user/Ward members can also drive the motor by sending SMS through fixed mobile no.



# Electronic Bell

(For Institutions/Schools/Factories)



## Electronic Bell Ver. 1

### About Product:

The academic institutions uses manual bell for the purpose of giving periodic information and warning to students. Problem occurs when staff forgot to ring bell on time or sometimes due to some miss happening, he couldn't get chance to do so. To avoid this problem, Automatic Electronic Bell is needed to install in the school. This "Electronic Bell" is used to produce automatic warning sound and periodic sound as per clients time input. The given time input is user programmable and easy to use.

This version package doesn't include Gong Bell (Electromechanical Bell) to hear bell sound. This version is useful only for those schools/academic institutions where mechanical or electrical bell is already installed to produce sound. If they don't have then, they will have to buy Gong Bell (Mechanical Bell) or we can also supply.

### It has four switches:

1. Time set: this is used for setting time.
  2. Shift (up and Down): this is used to increase or decrease the time of the system.
  3. OK : this switch is for giving ok signal,
- It has additional manual switches which can be used in any emergency or immediate need.

This version can control and drive maximum three electrical bells at a time.



## Electronic Bell Ver. 2

### About Product:

**The Electronic Bell Ver. 2** is multi music Electronic Audio Bell which can produce different automatic musical sound at different given time inputs. This is memory based user programmable automatic school bell electronic circuit which produces multiple sound and gives different music based periodic warning to the students in the school. User can select and store music in the memory device and fit inside the system. No mechanical Bell is required in this system. But output of this system should be connected to sound amplifier system to get sound in the class room. Like ver 2, User should have Sound amplifier system in all the class room or where ever they require to get intimated by sound. This product is useful for only those big school/academic institutions where they have already installed sound amplifier system and need different audio at different time

### Multi Music Electronic Bell with Speaker system

#### Features

Like Version 1, It has four also switches:

1. Time set: this is used for setting time.
2. Shift (up and Down): this is used to increase or decrease the time of the system.
3. OK : this switch is for giving ok signal, It has also additional manual switch which can be used in any emergency or immediate need.

*It has additional manual switches which can be used in any emergency or immediate need.*



# POWER ELECTRONICS

## Universal Batter Charger

(E-Rickshaw Battery Charger)



This is 12v(X4=48V) 15 amp automatic Universal Battery Charger (All in One) which can be used for E-Rickshaw, Truck, Buses, Car, Motor cycle, Truck, VAN, Emergency Light, mobile and other electronic equipment.

This is 12v(X5=60V) 20 amp automatic Universal Battery Charger (All in One) which can be used for E-Rickshaw, Truck, Buses, Car, Motor cycle, Truck, VAN, Emergency Light, mobile and other electronic equipment.

## VARIABLE POWER SUPPLY



This is regulated variable power supply which can vary voltages between 0 to 30 volt and Current can vary from 0 to 5amp.

### Features:

- Input power: 110v-240v
- Output power: 0 TO 30 V
- Transformer Based Power Supply
- Short circuit/Over load/ Over voltage/ Over temp protection.

Suitable for Electrical & Electronics Lab purposes, electric industry equipment, etc.

## Battery Eliminator



This is Transformer based regulated power supply which eliminates between 12v and 5v. Current is 2 Amp. This is Transformer based regulated power supply which eliminates between 12v and 5v. Current is 2 Amp. This is Transformer based regulated power supply which eliminates between 12v and 5v. Current is 2 Amp.

### Features:

1. Transformer based power supply
2. Regulated to 12v and 5v, Current is 2 amp
3. Applicable for lab equipment power supply as per need

Input Voltage	220v
Output Type	Dual
Output Voltage	12V, 5v
Output Current	2a

## DC Power Supply



This is Transformer based Regulated DC Power Supply which can be used as Power Supply for Lab equipment's, CCTV Camera and other electrical and electronic items.



Smartway Electronics

**Corporate Office :**

Multi Niwas, First Floor, Road No. 1,  
Dhelwan, Kankarbagh,  
Near Mithapur Bus Stand, Bye Pass Road  
Patna – 800020 India

Tel: +91-612-3219140, +91-8002359537  
Email: smartwayelectronics20@gmail.com  
swe@smartwayelectronics.com

**Marketing Office :**

Co-working Space - 80, Block 'A'  
B-Hub, Maurya Complex, Block - A  
Deptt. of Industry, Government of Bihar  
Patna, Bihar, India.

Email : tekbrainshr@gmail.com

**Bangalore Bioinnovation Centre**

BS09, Ground Floor,  
Bangalore Helix Biotech Park,  
BBC, Electronic City Phase – 1  
Bangalore- 560100

Mob:+91-8002359537

**Mumbai Center :**

Plot No.177, Shree Niwas  
B-301, Sector 14,  
Nerul (west), Navi Mumbai – 400706

Mob: +91-8008475077

Email : swemrktng@gmail.com

**Our Support**



**Associates**



Registered  
Trademark



Smartway Electronics



Tekbrains™

**Product Certification :-**

