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ZR6AIC

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Saturday, February 2, 2019

Building an Auto start Petrol Generator.

Building an Auto start Petrol Generator.

I am having regular power outages and had a need to get a backup system for my web and SDR servers.

I had a small Electric Start Petrol generator 3.6Kw that was good enough for my usage but wanted it to start automatically when the power go down.

Sins my generator has a manual carburetor choke I had to find a way to pull the chock and enable the starter to crank the engine and then release the choke when engine starts.

I found a electromagnetic relay that get used in a car lock mechanism and used it to pull and push the choke by applying the power for small time and then reversing the power for a small time.

Car Lock Actuator.

I also wanted to monitor the status of my Generator and stop and start it remotely. I wanted something that can be mange from my mobile phone.
I found this SMS control panel unit.

SMS control unit

I then needed a small controller with some inputs and outputs to control the Choke and starter of the Generator.

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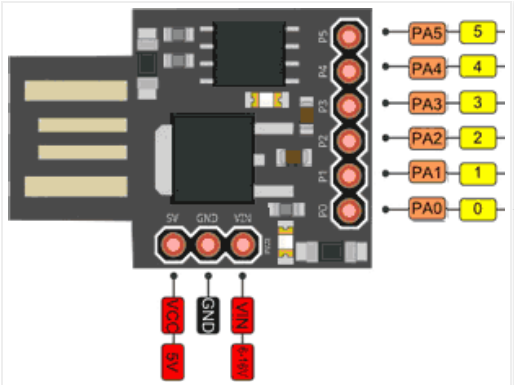


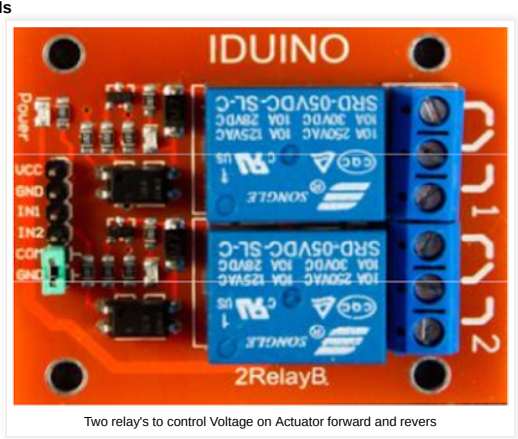
Arduino programmable attiny85 that controls Generator start sequence.

Arduino Program
1) Pin 0 Input
2) Pin 1 Output
3) Pin 2 Output
4) Pin 3 as Input
5) Trigger mode 3 keeping this mode.
6) Wait for trigger on Pin 0 (Start generator)
7) If Pin 3 is high Cant Start Generator
8) Trigger mode 1 1S and then back to mode 3
9) Trigger mode 2 1S and then back to mode 3

Relay Logic for Choke Acuator

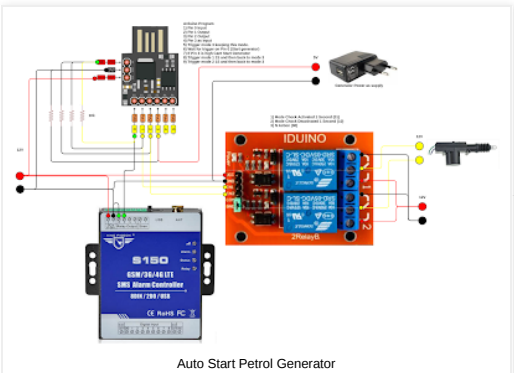
1) Mode Chock Activated 1 Second (01)
2) Mode Chock Deactivated 1 Second (10)
3) N Action (00)

Relay Boards



Two relay's to control Voltage on Actuator forward and revers

Putting it all together.



Auto Start Petrol Generator

My Petrol Generator had an one button start and stop control. S I only had to simulate a button

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- Buil-In (1)
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- casper-rw (1)

press for about 3 seconds. The same button is used for start and stop.

Posted by Anton Janovsky at 11:44 PM

3 comments

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Ayu - Dag shared this via Google+ 2 years ago - Shared publicly

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John Brock via Google+ 3 years ago - Shared publicly

This is yet another example of the power of the cpu's of today...
Software Defined Radio can do all that expensive dedicated hardware was designed for. Marinus isn't this what you wanted to do?

1 · Reply

Marinus Brand 3 years ago

Yes John, I managed to decode DMR.

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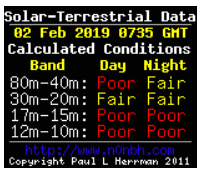

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- FM radio stations in South Africa
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- My new HF KiwiSDR
- Namibia Amateur Radio League (NARL)
- Old HF webSDR in Johannesburg, South Africa
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- South African Radio Amateur Repeaters on Google maps
- Southern African Amateur Radio Satellite Association
- The South African Radio League
- webSDR Index

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- Bloemfontein Amateur Radio Club
- Border Radio Club
- Cape Town Amateur Radio Club
- Durban Amateur radio Club
- East Rand Branch
- Highveld Amateur Radio Club
- Highway Amateur Radio Club
- Kemptom Park Amateur Radio Technical Society
- Midlands Amateur Radio Club
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How to install SDR# SDRsharp on Windows

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How to Decode DMR-MARK (mototurbo) with SDRSharp and RTL dongle on Windows 7 DSD decoding with SDRSharp and RTL dongle. I found...

Creating a 2m Fm Repeater with a Raspberry Pi (B) and a RTL dongle.

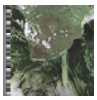
Creating a 2m Fm Repeater with a Raspberry Pi (B) and a RTL dongle. (Don't use this application without the RF filter) RTL dongles i...

Installing Zadig USB driver for RTL_dongle on windows 7

Installing Zadig USB driver for RTL_dongle on windows 7 SDR dongles is available at http://www.giga.co.za/ocart /index.php?route=product/...

Testing the Lime mini SDR with Gnuradio

lime_mini This repository will have all my Lime mini configurations. https://github.com/antonjan /lime_mini Installing soapysdr on ubunt...



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Receiving NOAA weather satellite images with a RTL dongle and a Turnstile crossed dipole automatically. NOAA19-HVCT 2017-03-18 15:40 Ta...

EchoLink on Ubuntu (Setting up Svxlink server and qtel)

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