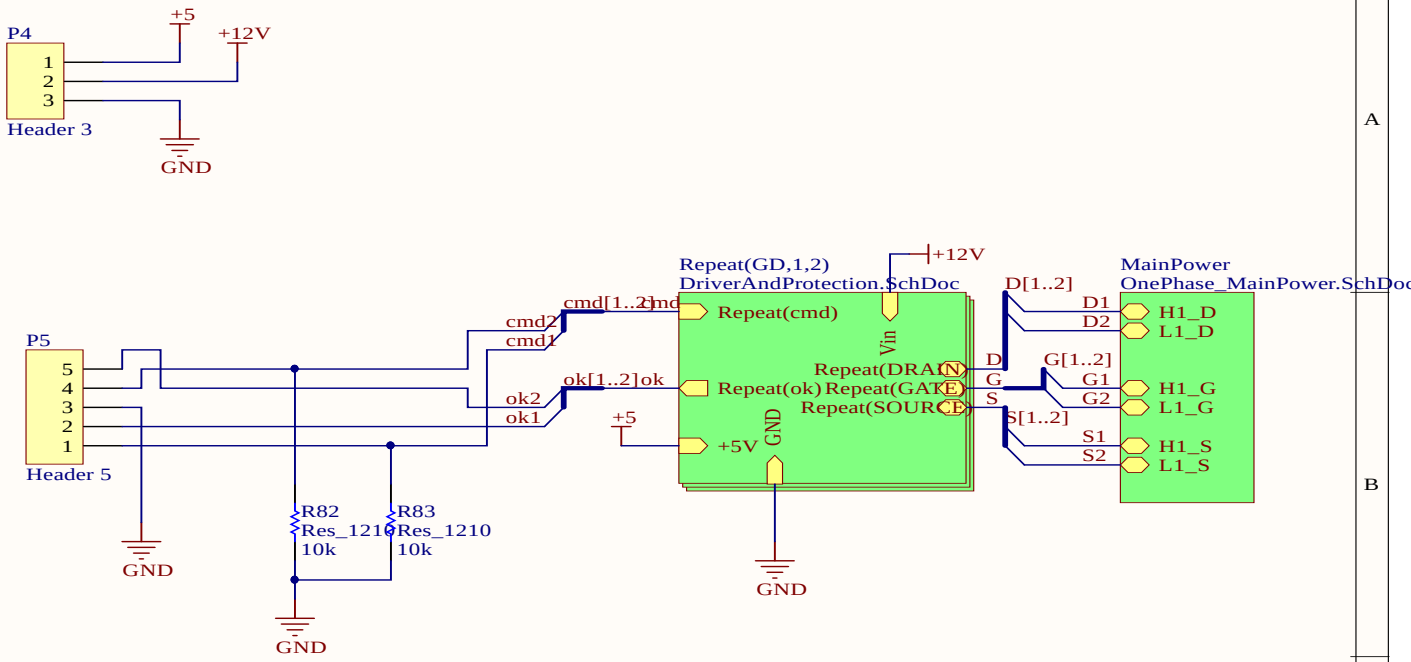


Conferir lógica
Sensor de temperatura (i2c)
Alimentação para cooler (PWM?)
Melhorar apresentação / Deixar diagramas mais "didáticos"
(colocar descrições, instruções de ajuste, nomes, organização dos blocos etc)

Iniciar Layout

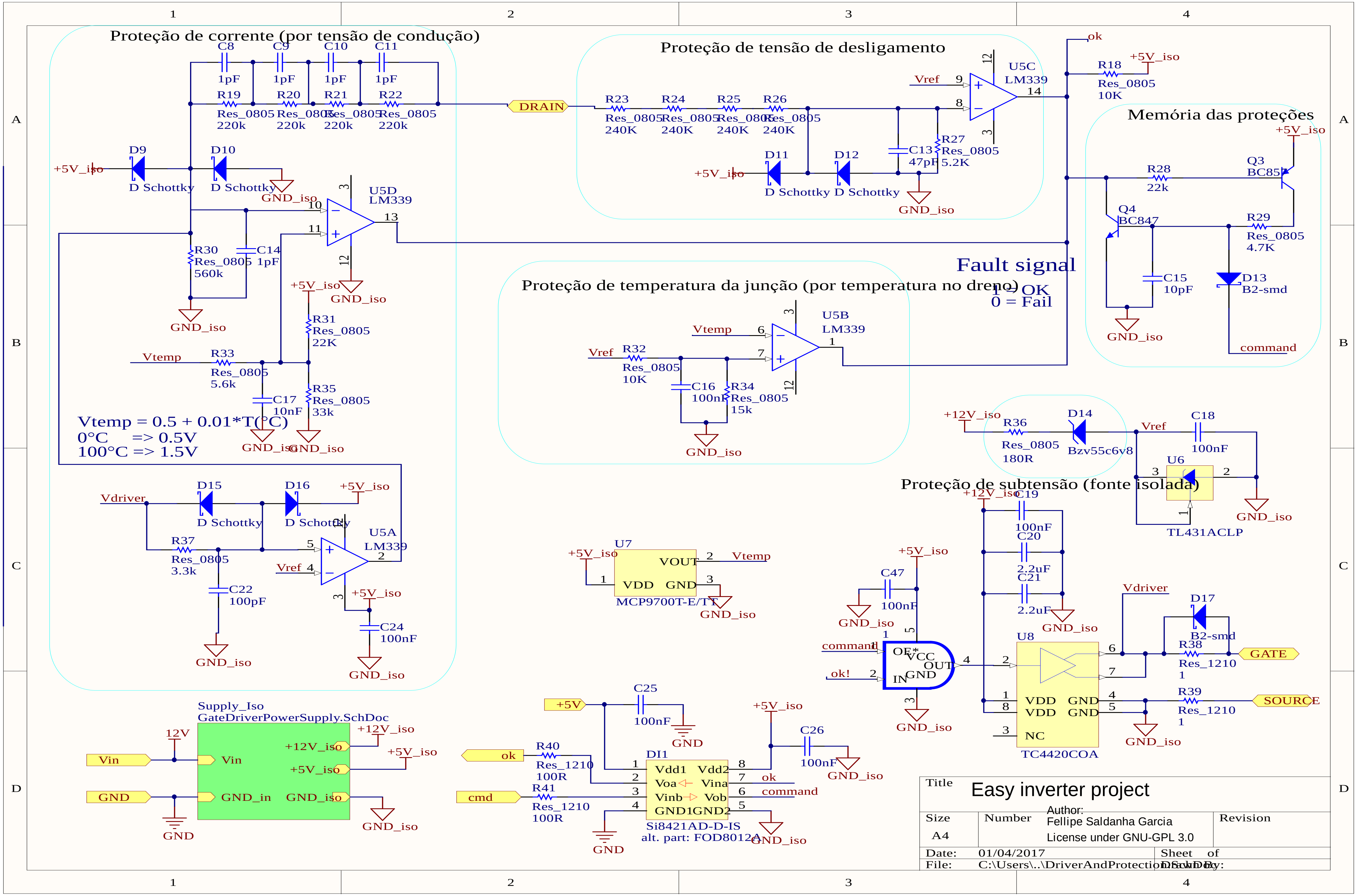
Definir conectores e fixações (projeto mecânico)

Definir disspador / cooler (projeto térmico)

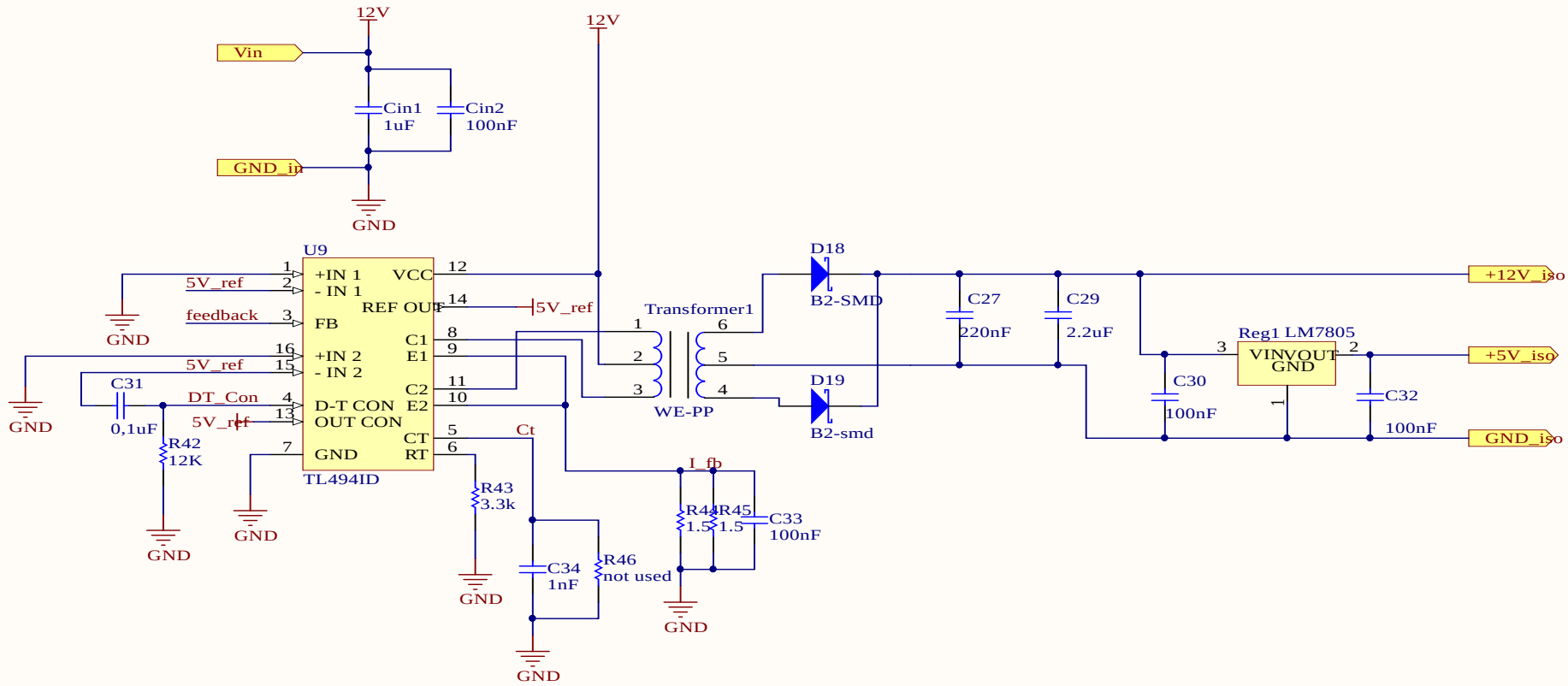
Fabricação Placas de testes

Início dos testes

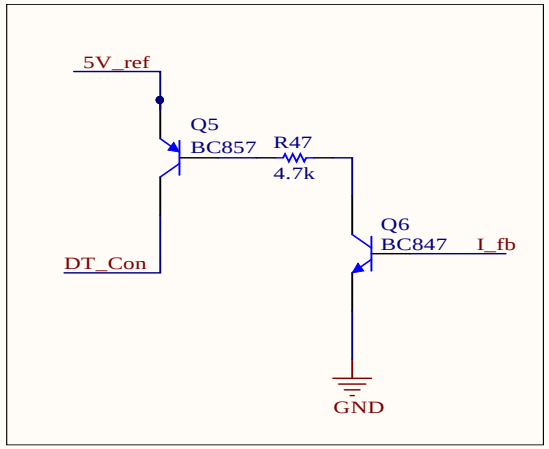
Title: Easy inverter project		
Author: Arthur Crisóstomo Prates		
Size: A4	Number: License under GNU-GPL 3.0	Revision:
Date: 01/04/2017	Sheet of	
File: C:\Users\..\OnePhaseMain.SchDoc	Drawn By:	



Proteção de corrente (por tensão de condução)
C8 1pF
C9 1pF
C10 1pF
C11 1pF
R19 Res_0805 220k
R20 Res_0805 220k
R21 Res_0805 220k
R22 Res_0805 220k
DRAIN
+5V_iso
D9 D Schottky
D10 D Schottky
GND_iso
U5D LM339
R30 Res_0805 560k
C14 1pF
R31 Res_0805 22K
Vtemp
R33 Res_0805 5.6k
C17 10nF
R35 Res_0805 33k
Vtemp = 0.5 + 0.01*T(°C)
0°C => 0.5V
100°C => 1.5V
Vdriver
D15 D Schottky
D16 D Schottky
R37 Res_0805 3.3k
C22 100pF
U5A LM339
Vref
C24 100nF
Proteção de tensão de desligamento
R23 Res_0805 240K
R24 Res_0805 240K
R25 Res_0805 240K
R26 Res_0805 240K
D11 D Schottky
D12 D Schottky
C13 47pF
R27 Res_0805 5.2K
U5C LM339
ok
R18 Res_0805 10K
Memória das proteções
R28 22k
Q3 BC857
Q4 BC847
R29 Res_0805 4.7K
C15 10pF
D13 B2-smd
command
Fault signal
1 = OK
0 = Fail
Proteção de temperatura da junção (por temperatura no dreno)
R32 Res_0805 10K
C16 100nF
R34 Res_0805 15k
U5B LM339
+12V_iso
R36 Res_0805 180R
D14 Bzv55c6v8
C18 100nF
U6 TL431ACLP
Proteção de subtensão (fonte isolada)
C19 100nF
C20 2.2uF
C21 2.2uF
U7 MCP9700T-E/TT
VOUT VDD GND
C47 100nF
OE* VCC OUT IN GND
ok!
U8 TC4420COA
VDD VDD NC GND GND
D17 B2-smd
R38 Res_1210 1
R39 Res_1210 1
GATE
SOURCE
Supply_Iso
GateDriverPowerSupply.SchDoc
Vin
GND
GND_in
+12V_iso
+5V_iso
12V
+5V
C25 100nF
R40 Res_1210 100R
R41 Res_1210 100R
cmd
DI1 Si8421AD-D-IS
alt. part: FOD8012A
Vdd1 Vdd2 Voa Vina Vinb Vob GND1 GND2
C26 100nF
Title Easy inverter project
Size A4
Number
Author: Fellipe Saldanha Garcia
License under GNU-GPL 3.0
Revision
Date: 01/04/2017
Sheet of
File: C:\Users\..\DriverAndProtection.SchDoc
Drawn By:



Current limit circuit



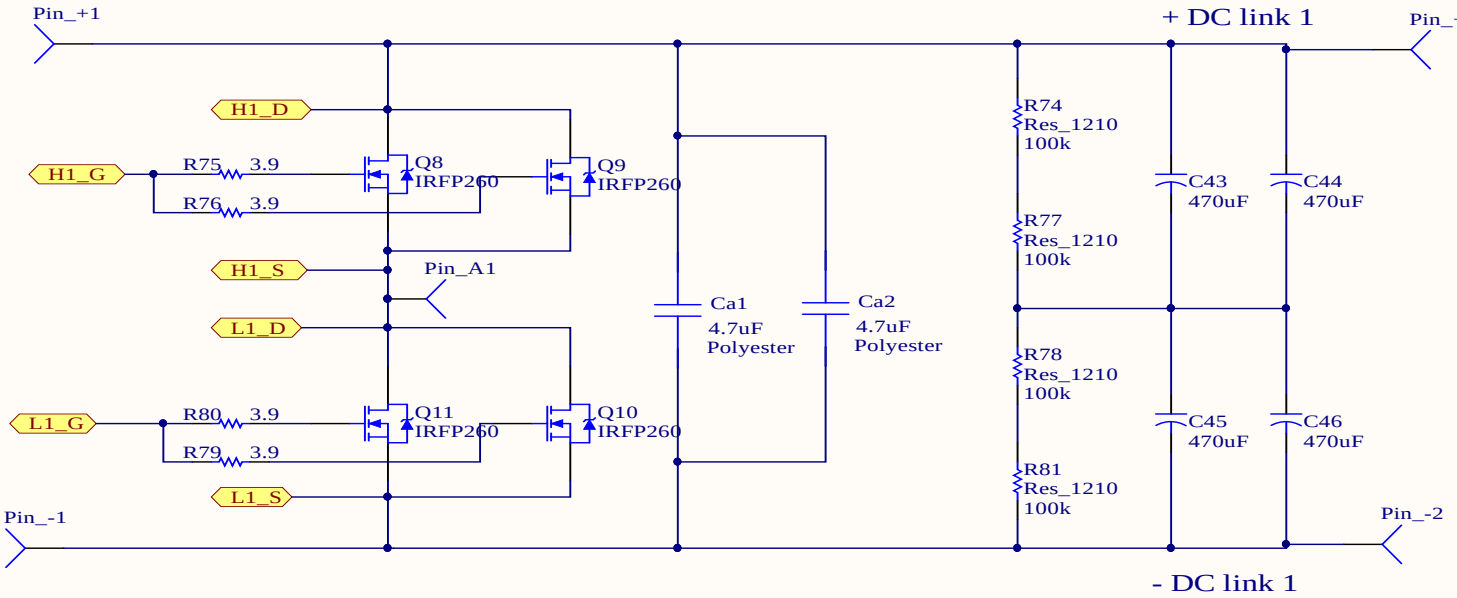
Switching frequency: 300kHz
Max. duty cycle: 45%
Input voltage: 8V
Output voltage: 12.5V

SMPS Controller:
TL494IDR
Alt. part: TL594CDR2G

Push-pull transformer:
Wurth Electronics
760390015

Author:
Hildo Guillardi Júnior
Joel Filipe Guerreiro
Fellipe Saldanha Garcia
Arthur Crisóstomo Prates

Title: Easy inverter project		
Size: A4	Number:	Revision:
Date: 01/04/2017	Sheet of	
File: C:\Users\..\GateDriverPowerSupply.SchDoc	Drawn By:	



Title	Easy inverter project		
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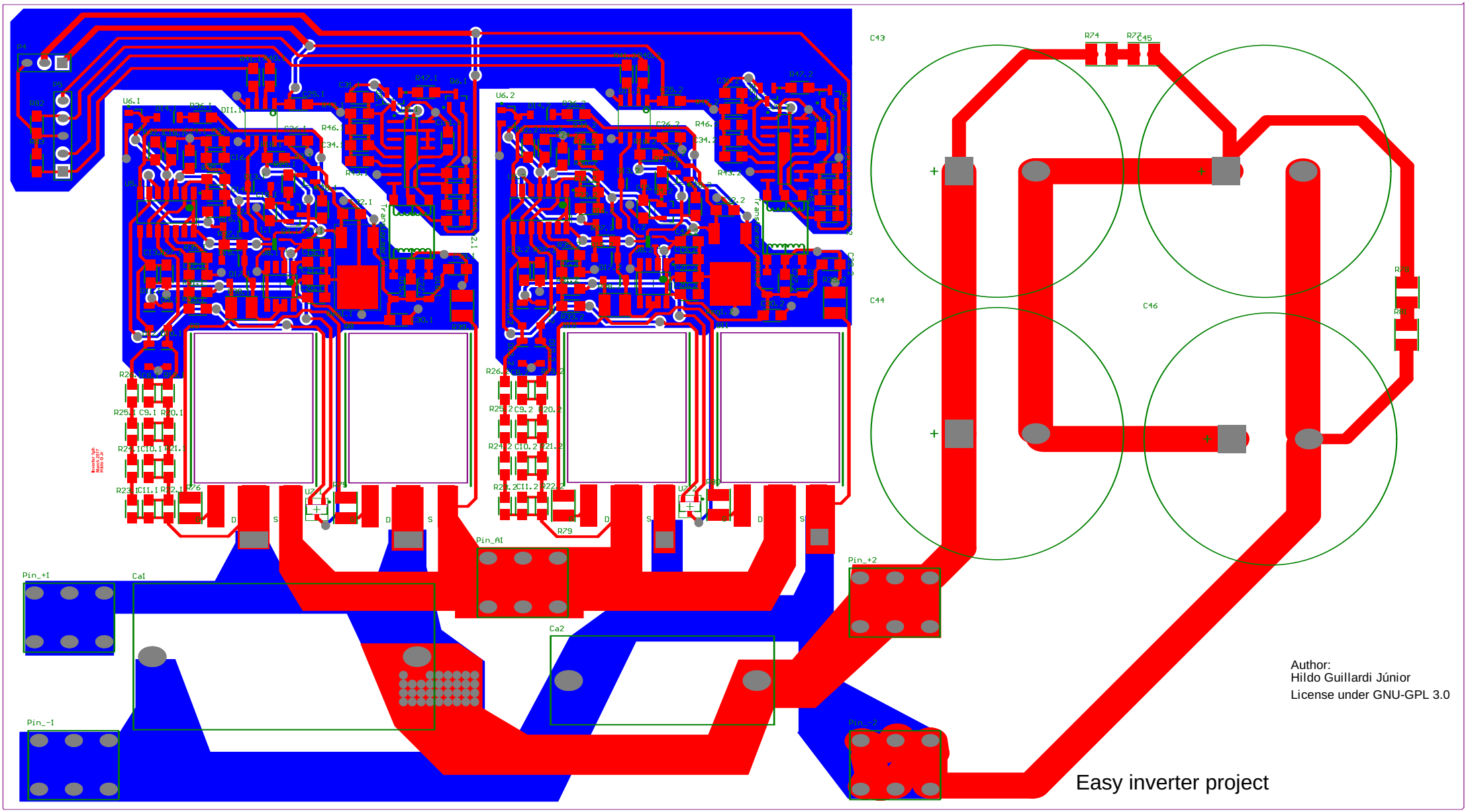
Size A4	Number	Hildo Guillardi Júnior License under GNU-GPL 3.0	Revision
Date:	01/04/2017	Sheet of	
File:	C:\Users\..\OnePhase_MainPowerSch.SchDoc	Drawn By:	


C43
R74
R77
C45
C44
C46
R78
R81
Pin_+2
Pin_-2
Pin_AI
Pin_+1
Pin_-1
Ca1
Ca2
R79
Author:
Hildo Guillardi Júnior
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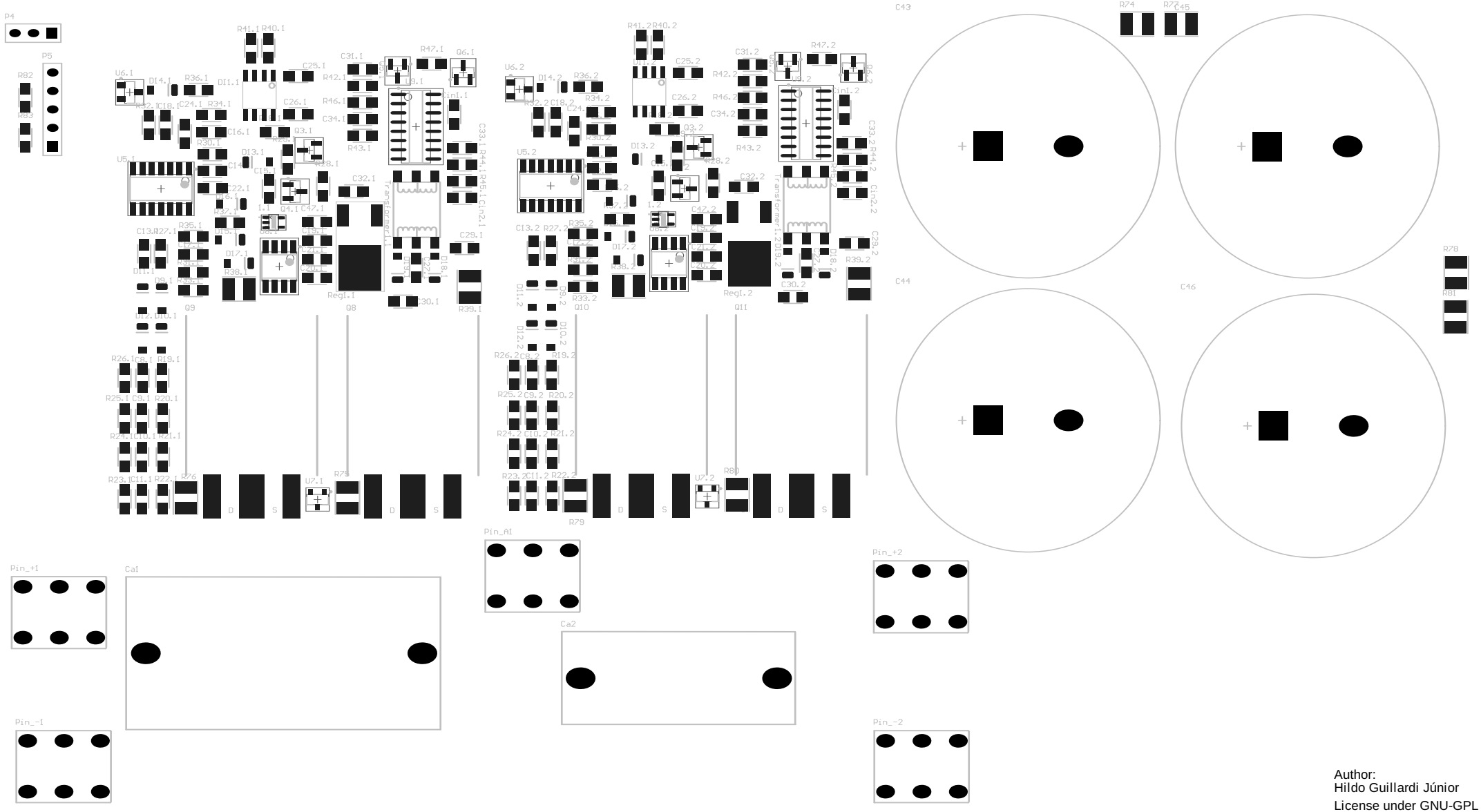

Author:
Hildo Guillardi Júnior

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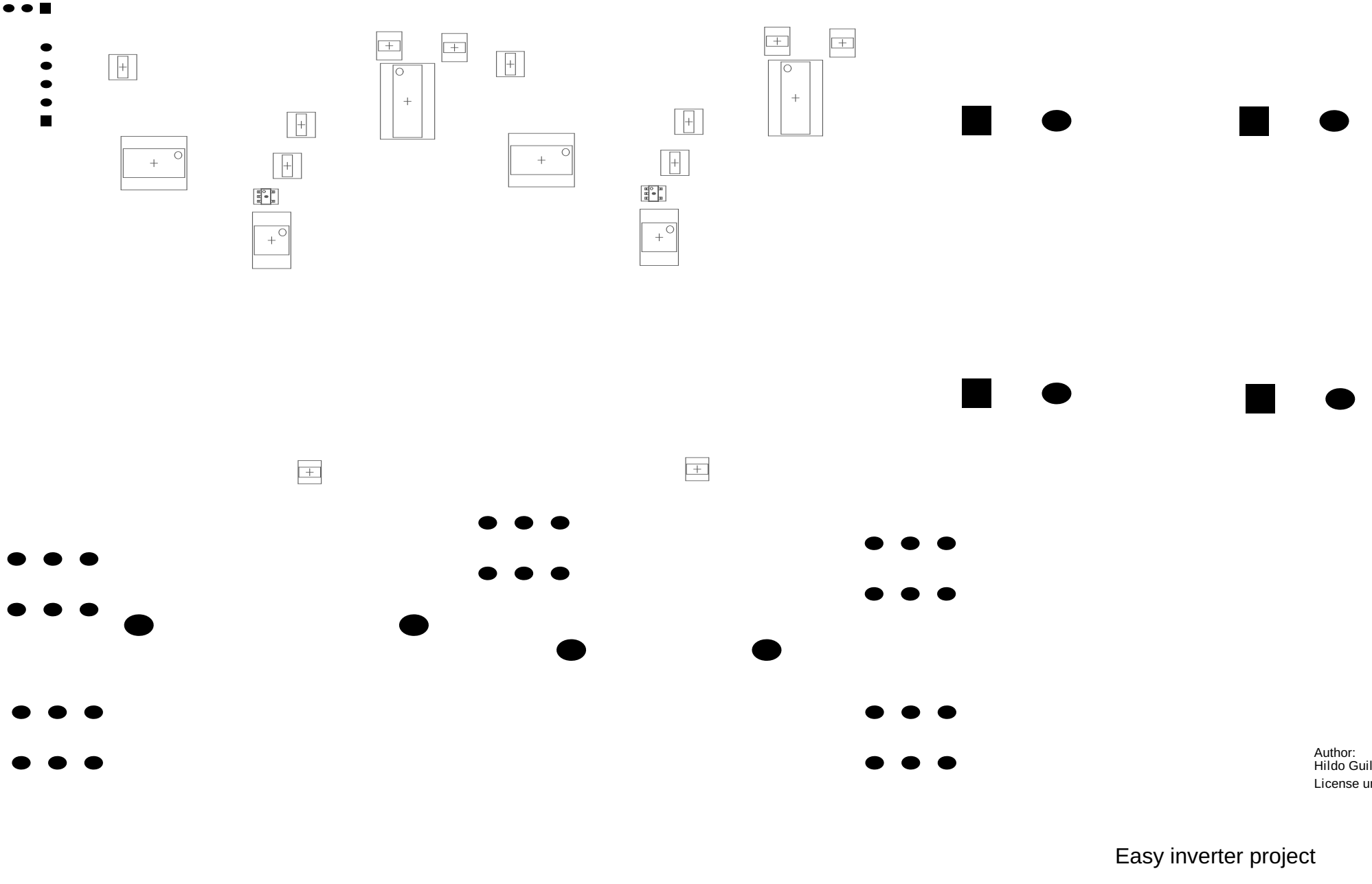

Author:
Hildo Guillardi Júnior

Easy inverter project

Boarc