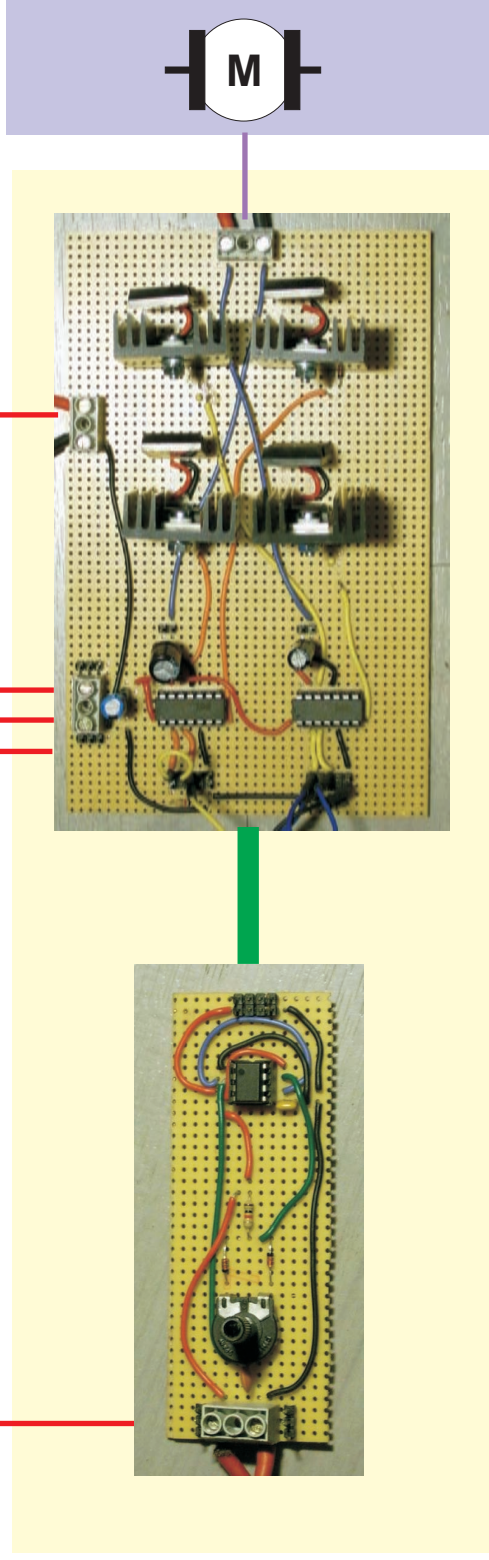
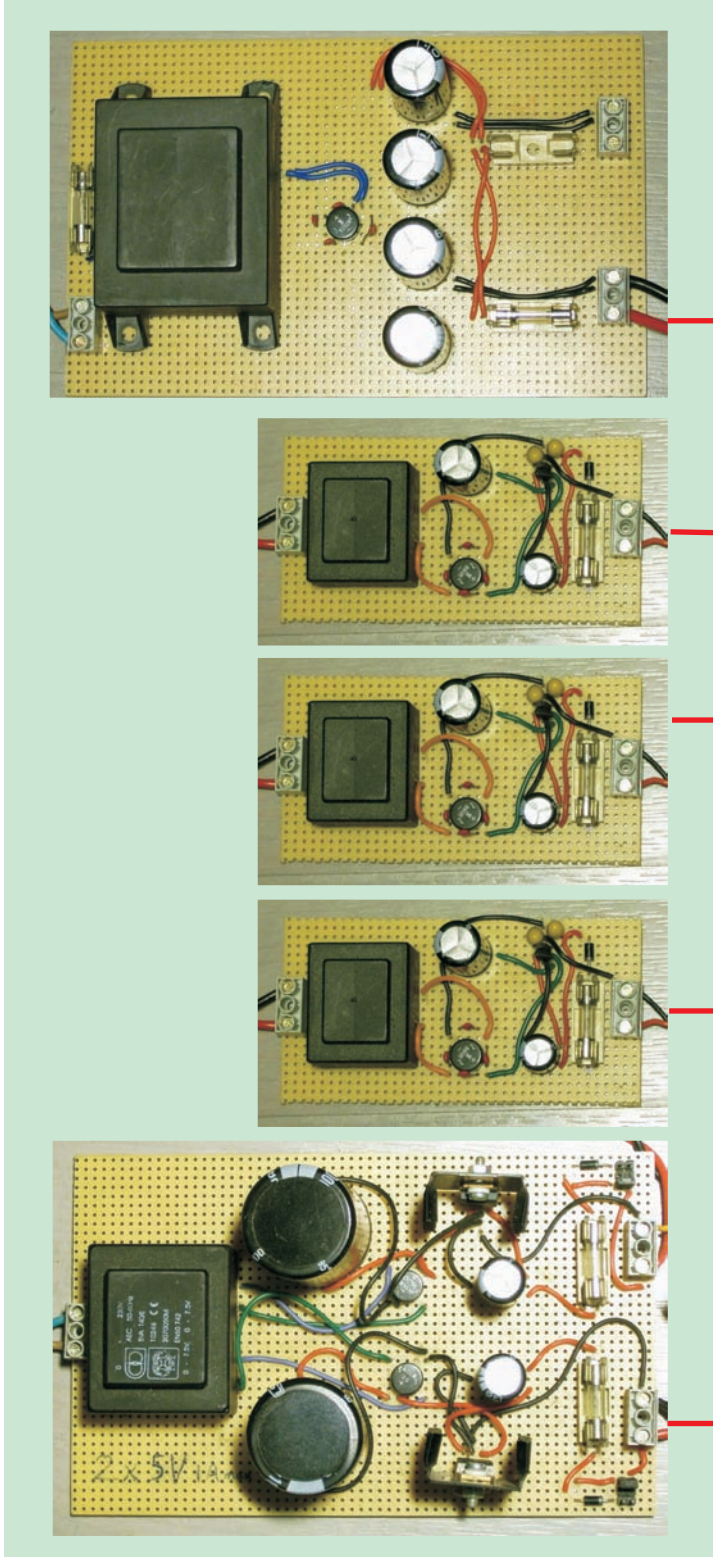


(Photo) Project layout

Universal Motor Driver

- 555 PWM
- HCS12



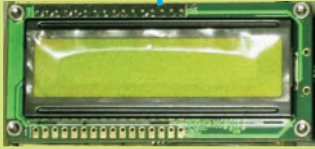
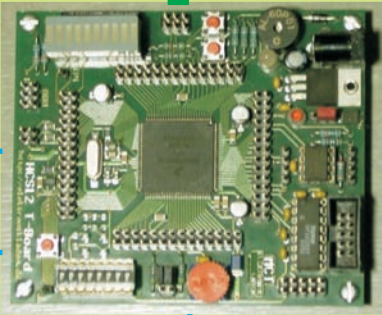
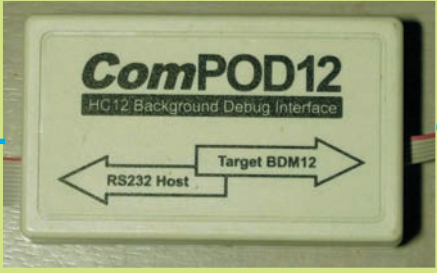
AC / DC Motor driver Test circuit with 555 PWM

555 PWM & Hbridge

Sources

Motor

PC



AC / DC Motor driver layout

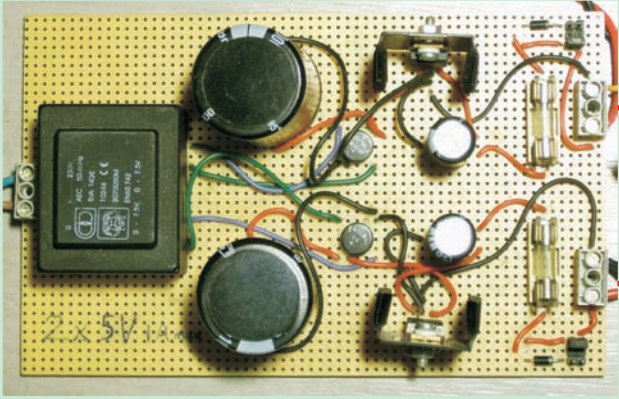
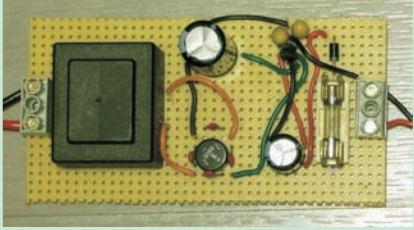
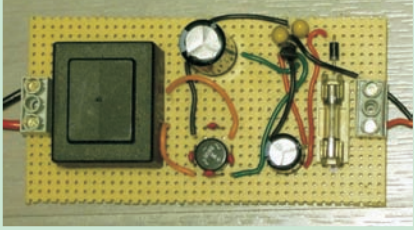
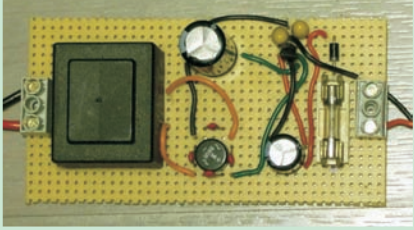
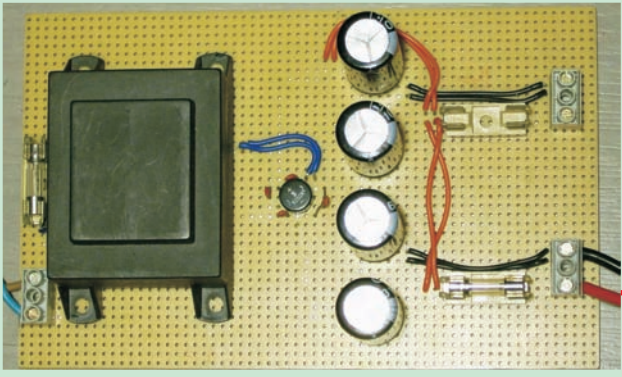
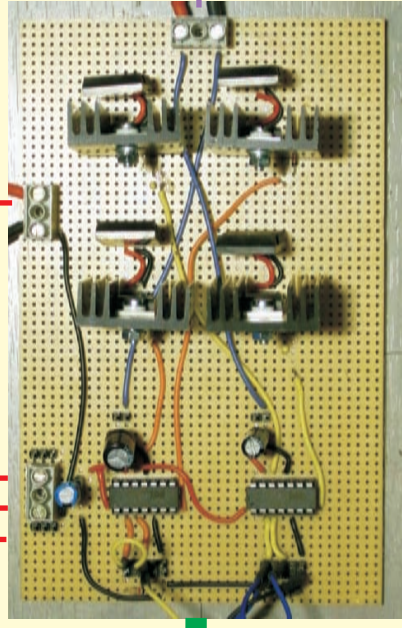
Windows PC

Embedded Controller

Interface & Hbridge

Sources

Motor

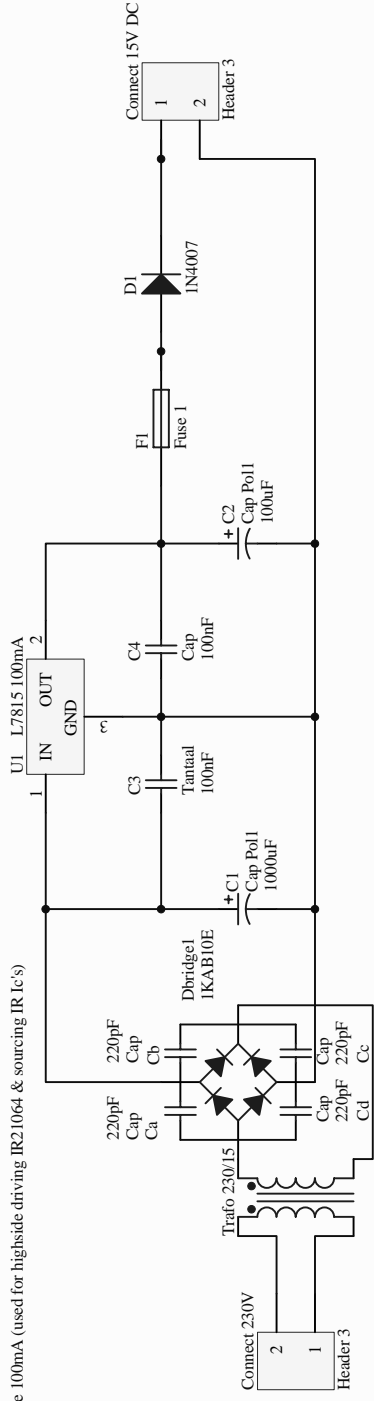


Schematics

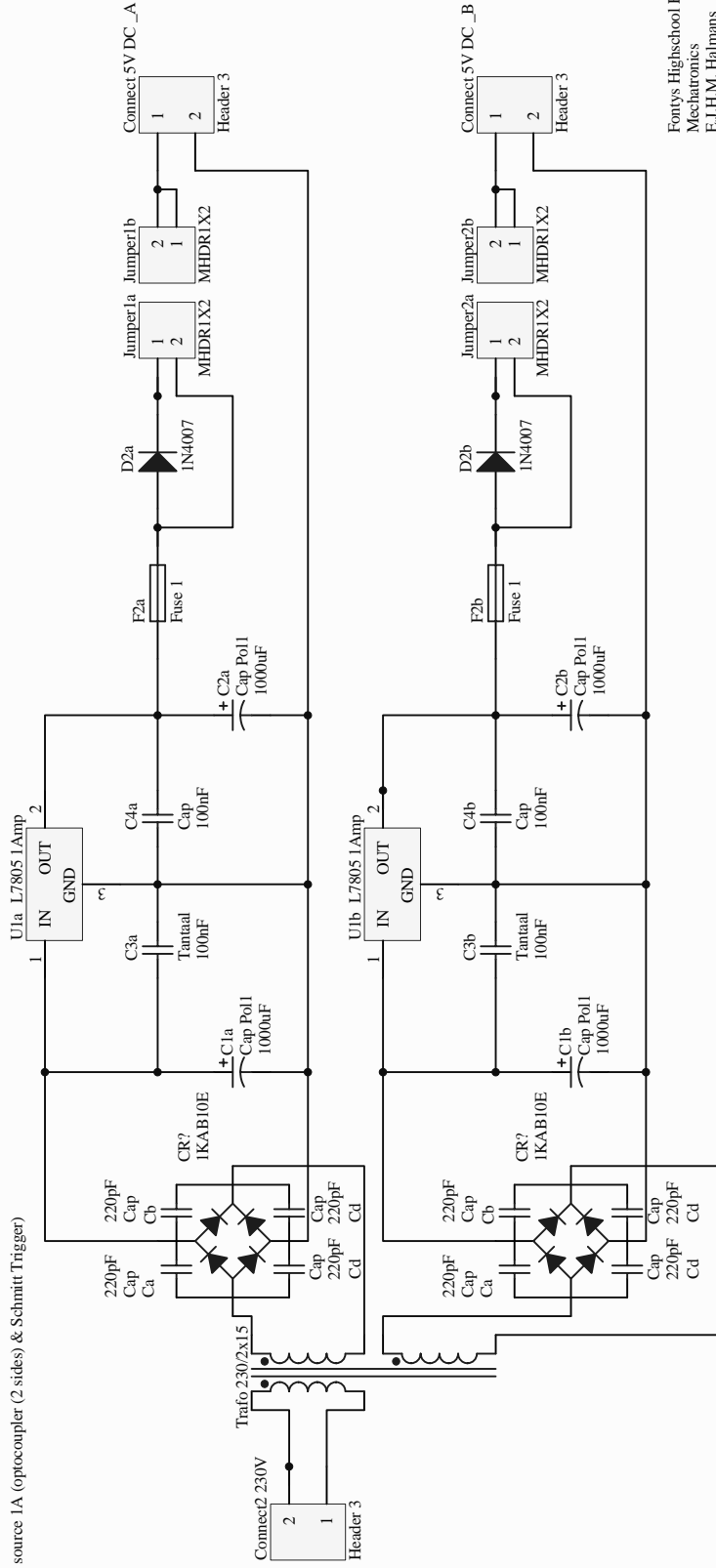
Universal Motor Driver

- 5 & 15 Sources
 - 35V & 310V Sources
 - OptoCoupler
 - Schmitt Trigger
 - Full H-bridge
 - Half H-bridge
 - Multiplexer
 - 555 25 khz & duty
-

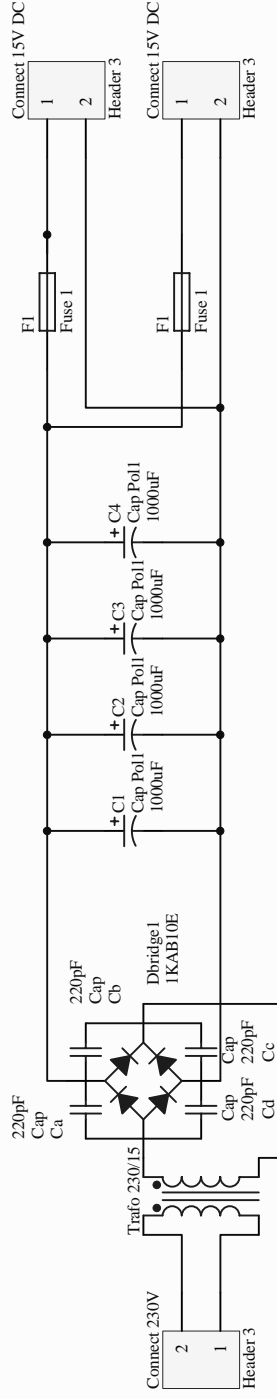
7815 single 15V DC source 100mA (used for highside driving IR21064 & sourcing IR Ic's)



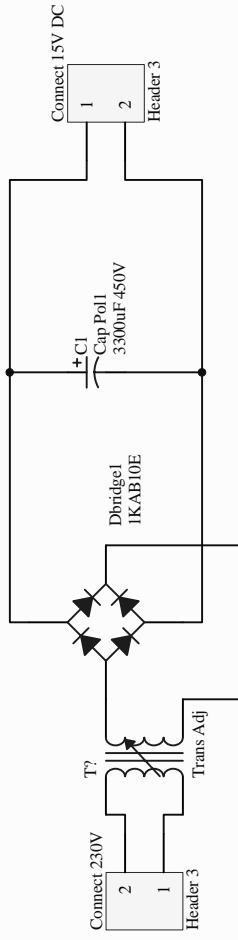
7805 Double 2 x 5V DC source 1A (optocoupler (2 sides) & Schmitt Trigger)



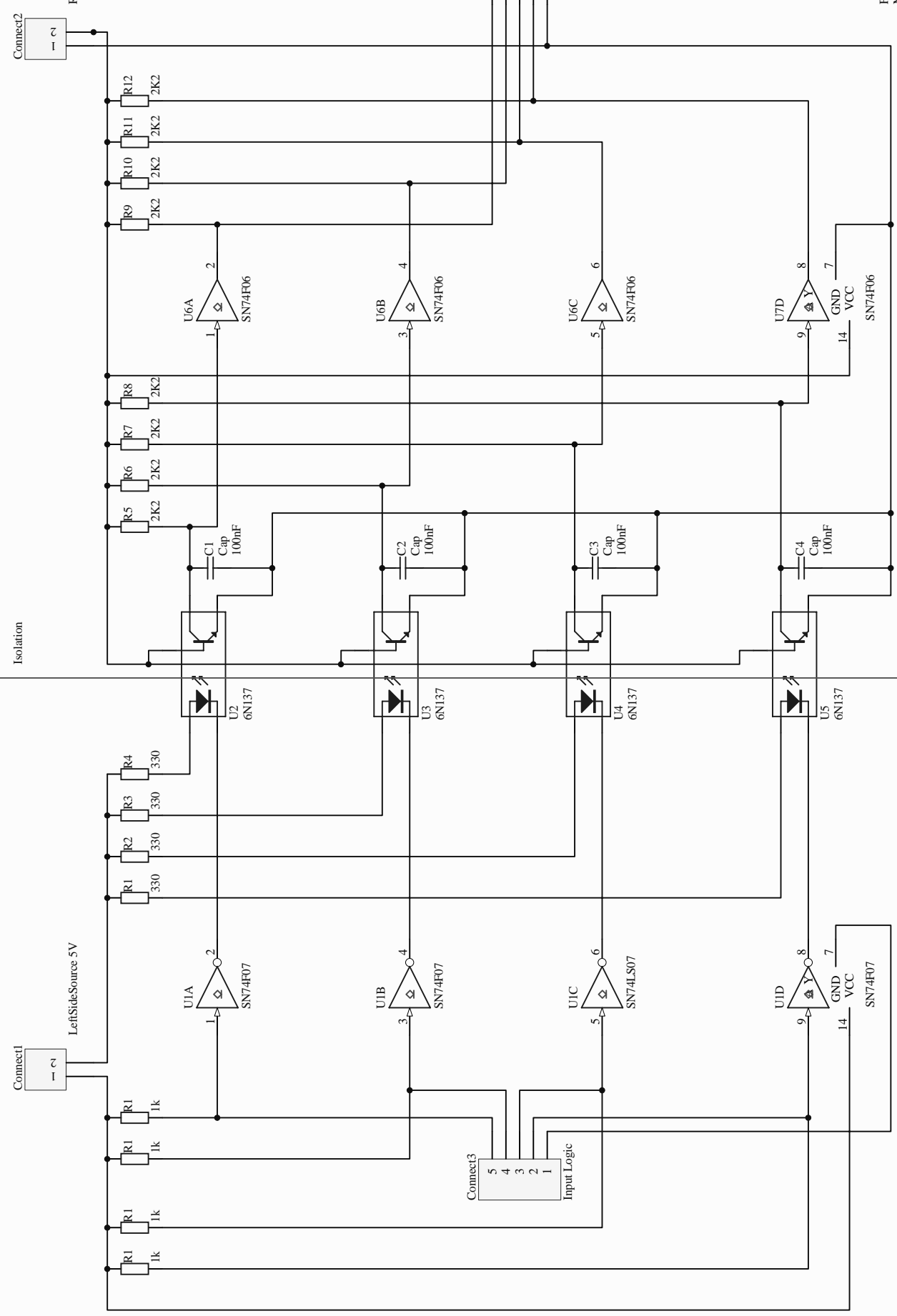
Emulated 230V source at +/- 10% of Max 230V source (35V DC)



230V rectifying source (Max 310V DC)



6N137 Optocoupler print (bandwidth 10Mhz)



Isolation

Connect1

Connect2

Connect3

Connect4

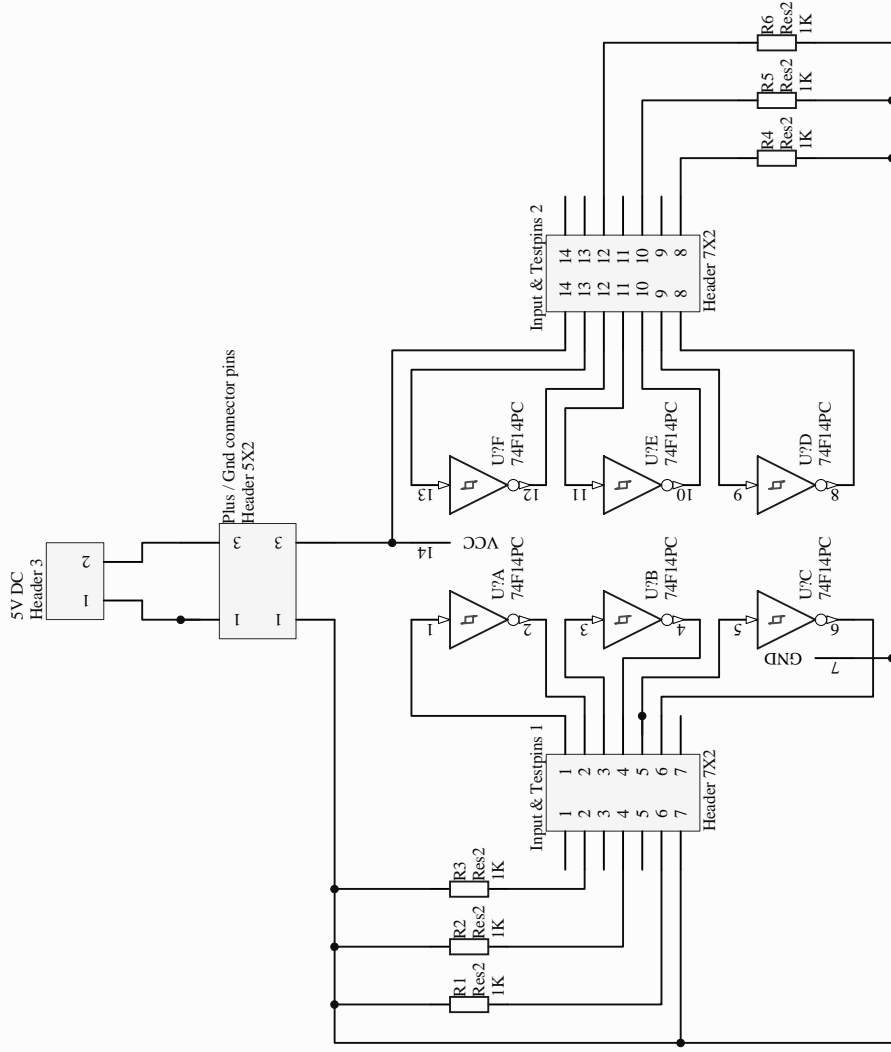
LeftSideSource 5V

RightSideSource 5V

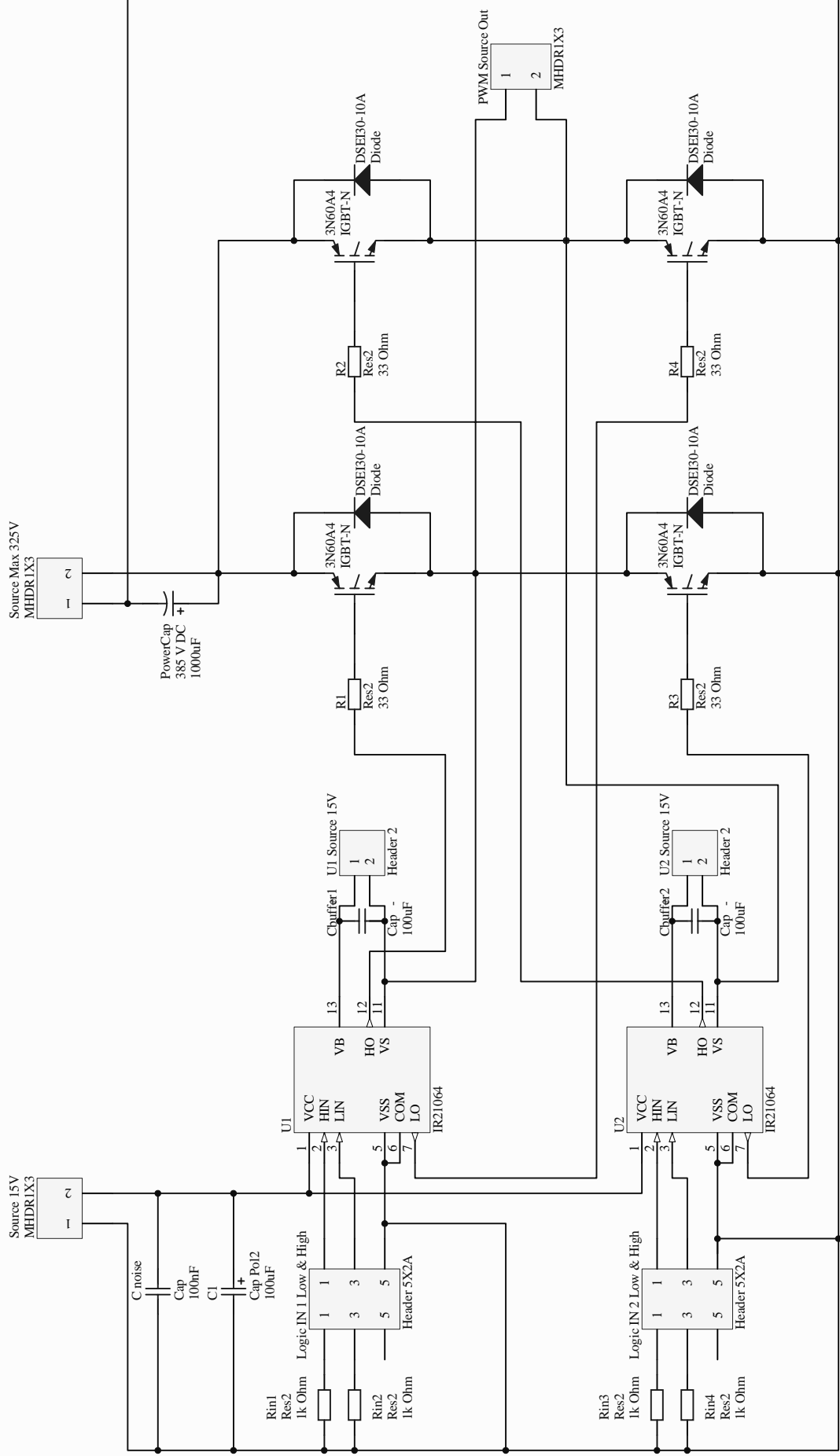
Input Logic

Output Logic

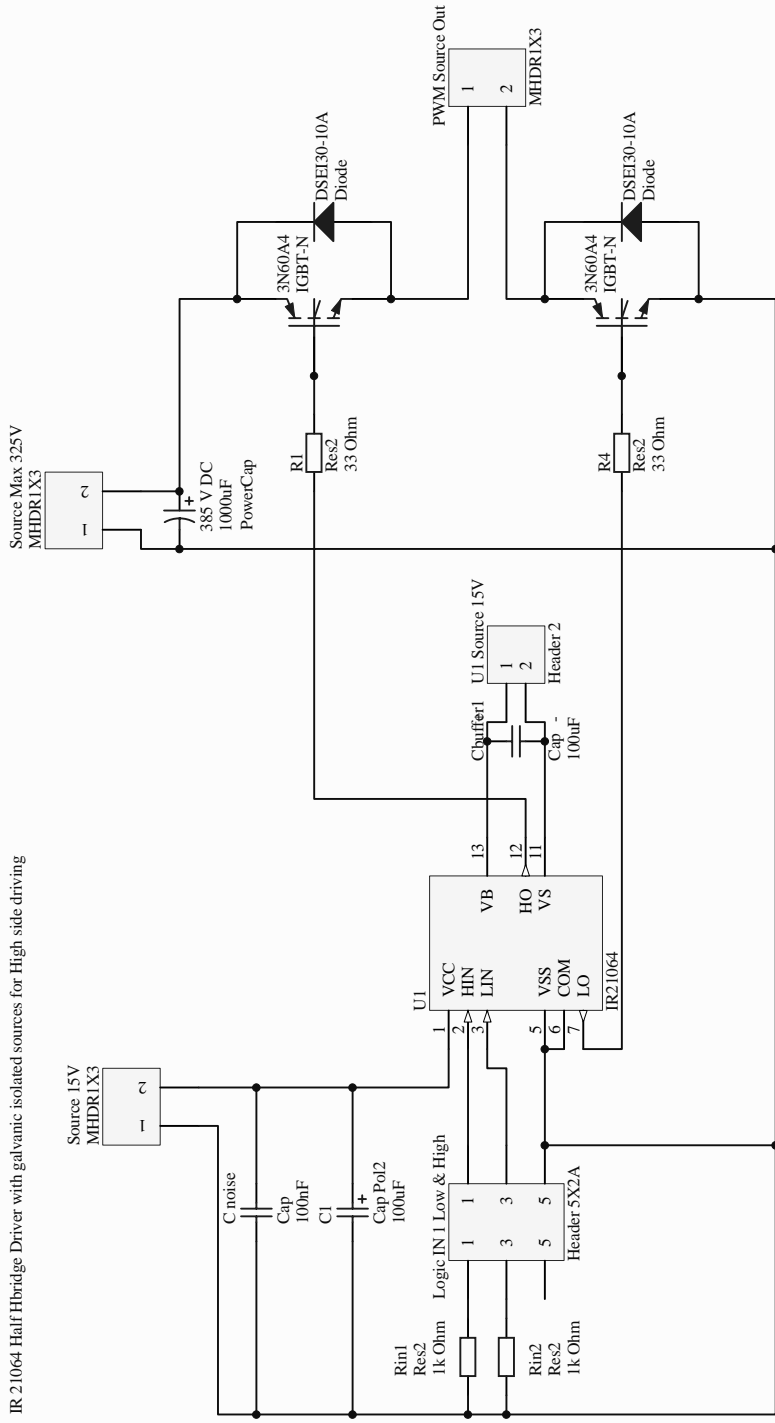
Schmitt Trigger testprint (Reshaping of digital signals after optocouplerprint)



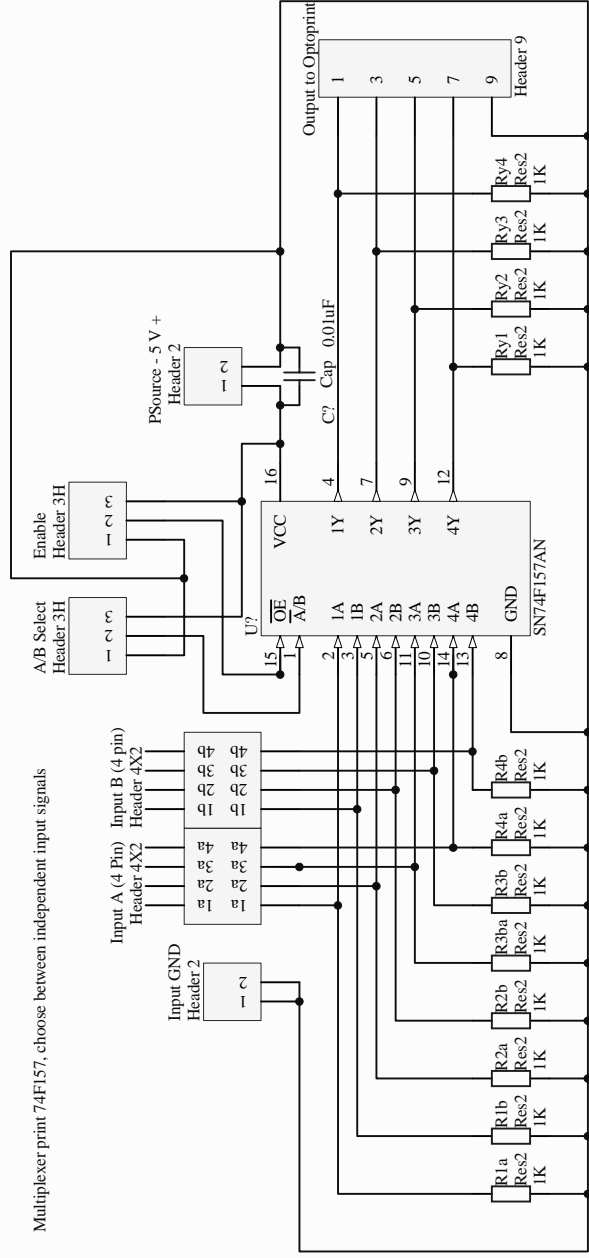
IR 21064 Full Hbridge Driver with galvanic isolated sources for High side driving



IR 21064 Half Hbridge Driver with galvanic isolated sources for High side driving

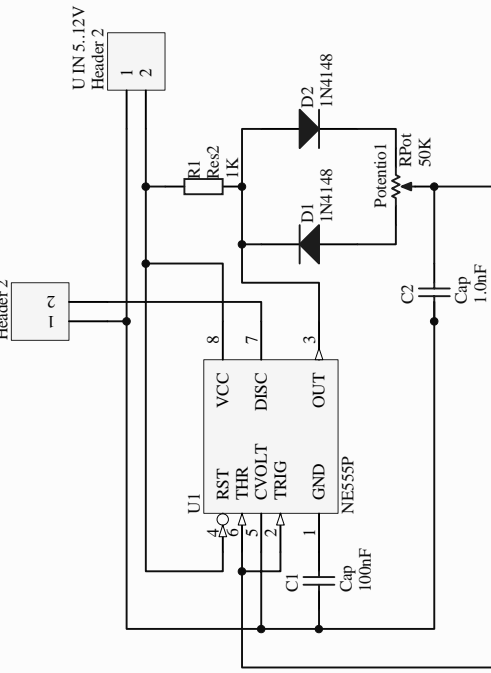


Multiplexer print 74F157, choose between independent input signals



Fontys Hogeschool Eindhoven
Mechatronica
E.J.H.M. Halmaans

25 KHz duty instelbare (PWM) Blok golf, met 555 PWM OUT Header 2



Fontys Hogeschool Eindhoven
Mechatronica
E.J.H.M. Halmans