

Transcutaneous Signal Transmission To The Left Ventricular Assist Device

Faculty Guide: Edward Hanzlik
Customer: Dr. Steven Day

Project
11022

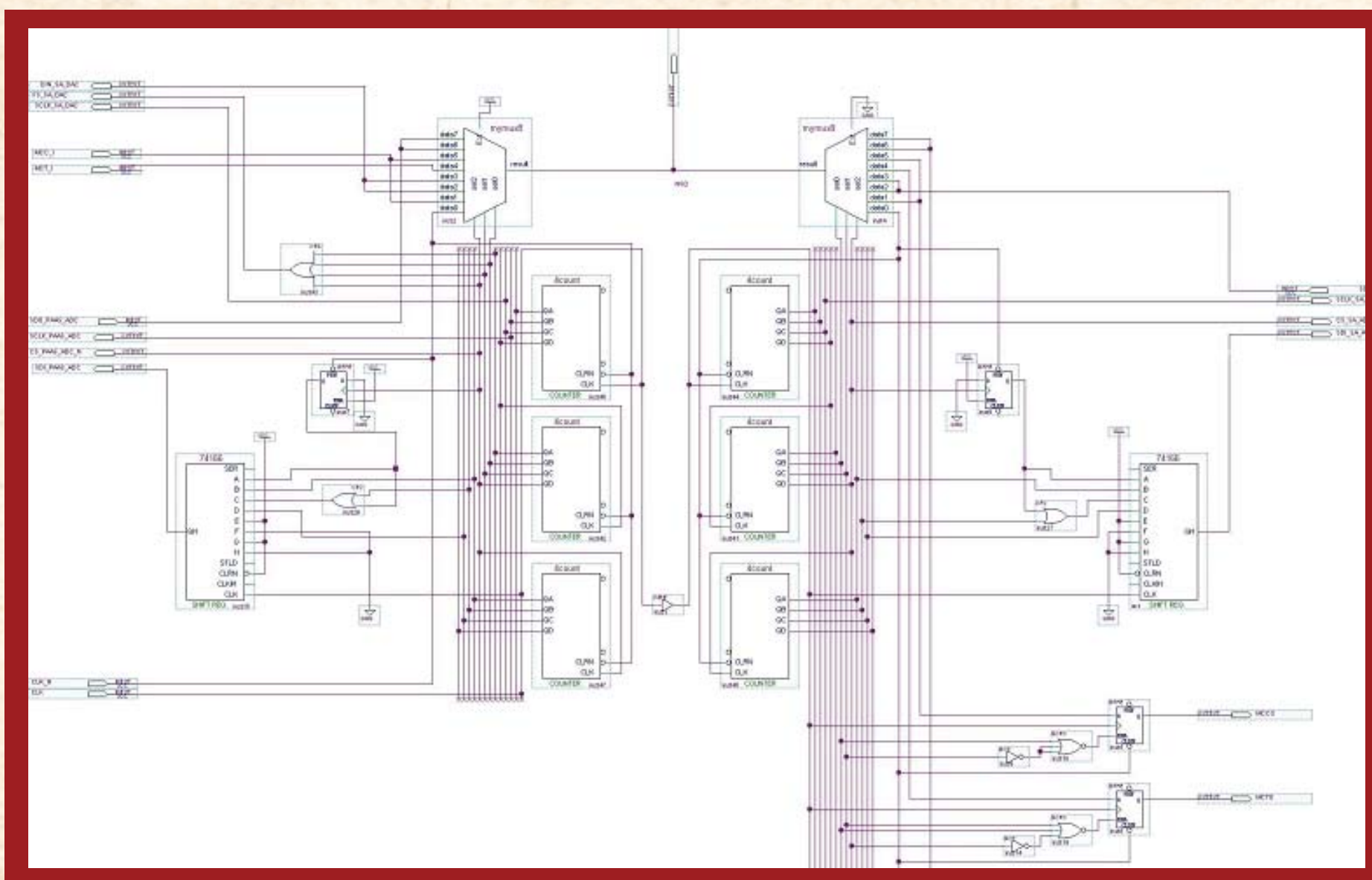
Main Objectives:

- The system needs to function
- Safe and reliable power and control signs
- Wire is more flexible
- The case should be waterproof
- The functionality of the LVAD is not impaired

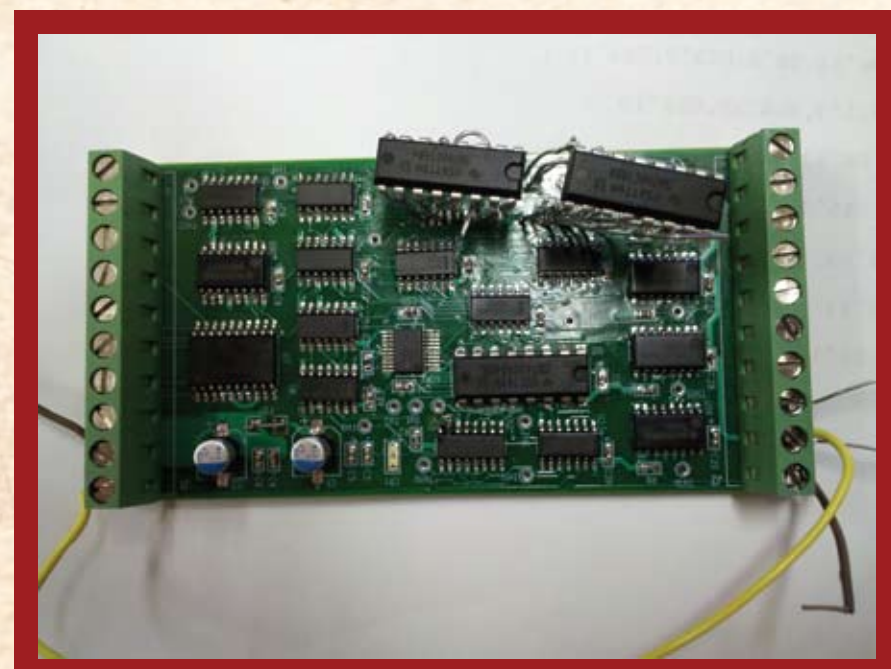
Deliverables:

- System Need to Work
- Wire is flexible and diameter is reduced in size
- Documented Signal Transmission Data

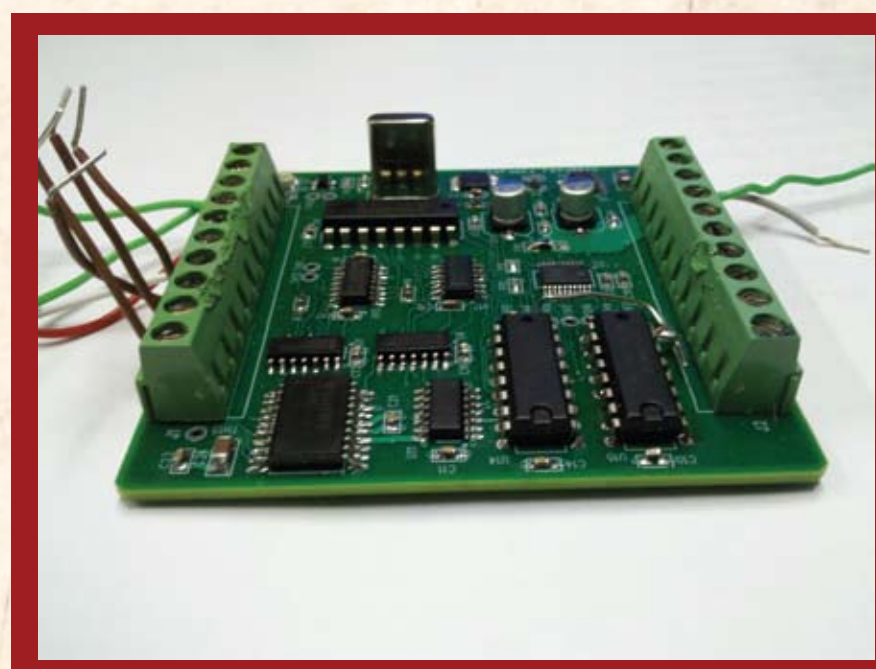
Senior Design Team 10022
Senior Design Team 11021
National Institute of Health
Utah Artificial



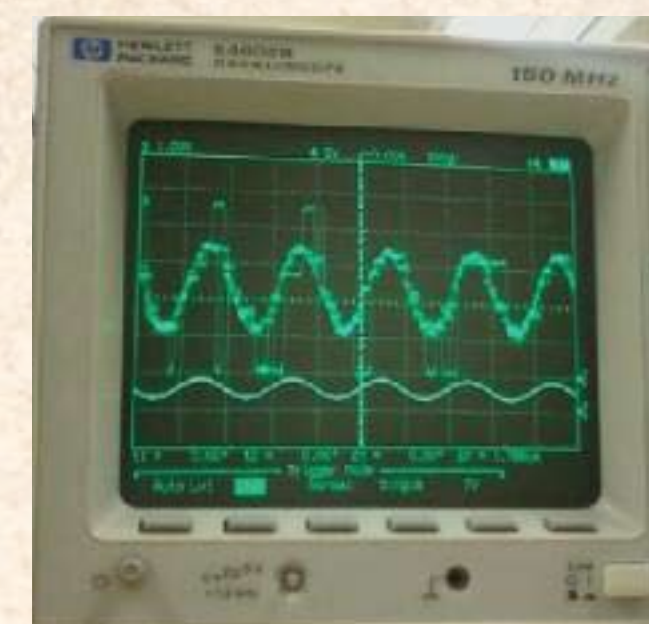
Layout Of Internal And External Circuit Boards.



Internal Circuit Board



External Circuit Board



SA Signals In (Bottom) and Out (Top) From Set Up On Bread Board.

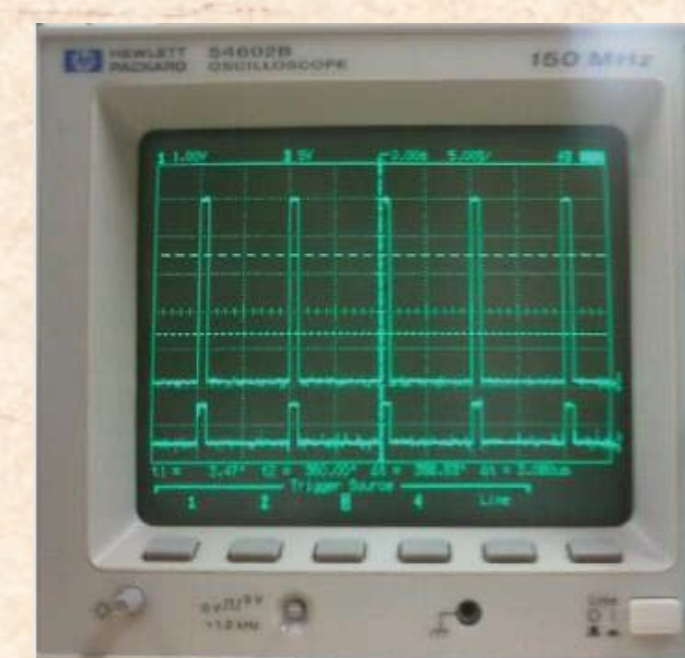


Internal And External Cases

Mechanical Testing:

Wire flexibility increased over 300%
Internal and external cases drop tested and confirmed to protect electronics.

Internal and external cases pressure tested and confirmed completely water tight.



MCC Data From PWBA

Acknowledgements:

Dr. Steven Day, Customer
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Edward Hanzlik, Team Guide



Team Memebers:

Yevgeniy Popovskiy (CE)
Vince Antonicelli (EE)
Craig LaMendola (ME)
Chrystal Androozzi (ME)

