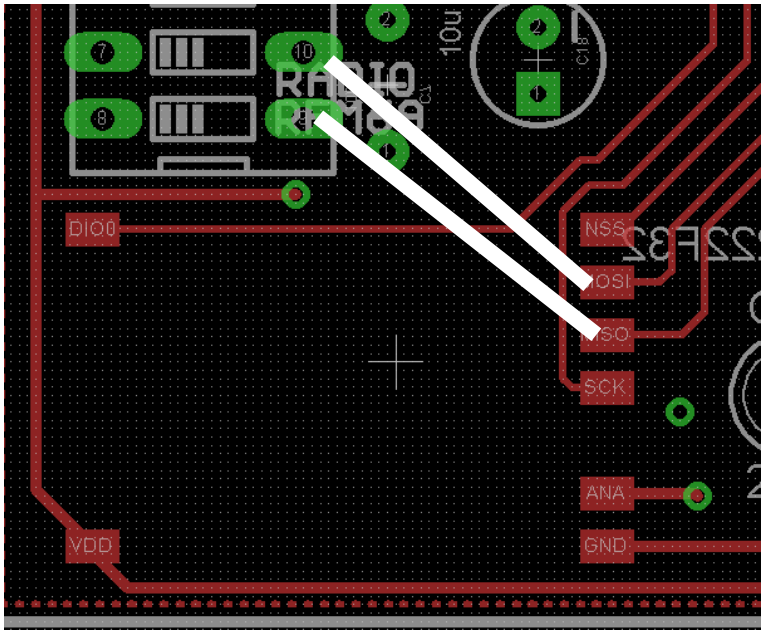
Required Modifications (Sensor Node v1)

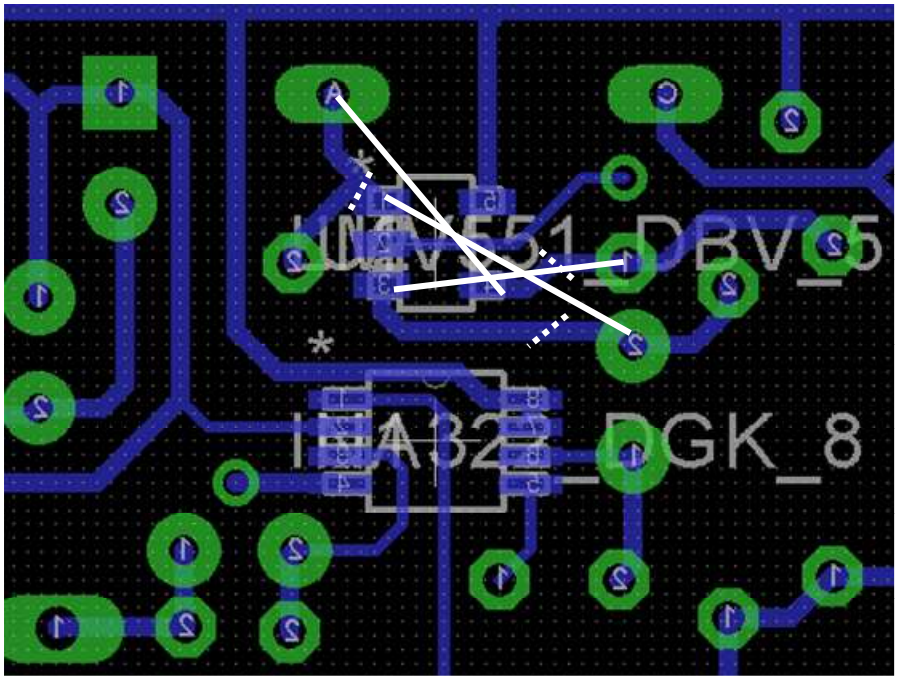
Radio Pins

- Connect MOSI to switch pin 10
- Connect MISO to switch pin 9
- Additionally, due to lack of soldermask the bottom side of the radio module must be covered with insulating tape before soldering to avoid short circuiting with the ground plane



LMV551 Op-amp

Cut trace for pins 1,3 and 4, reroute as shown on diagram



Additional Capacitors

Add additional 100u electrolytic and 1u ceramic capacitors across R7. Note that negative is closest to the transducer connector.

Add additional 100u electrolytic to D2 anode (note that D2 is replaced with a resistor below), with negative lead soldered to board ground plane

Analog Parts

- Replace C4, C1 with 1nf ceramic each
- Replace D2 with 62k
- Replace R10 with 7k5
- Replace R2 with 180k
- Replace R3 with 330k
- Replace R4 with 10k
- Replace R5 with 15k
- Replace R8 with 330k
- Replace R11 with 210k
- Do not fit R6

Required Modifications (Base Unit v1)

- Do not fit via under SD card slot
- Do not fit R5, R6, R7, R8, R9
- Power supply design is flawed and destroys regulator IC (pins 1 and 2 become shorted) when connected to Discovery board. Current workaround is to remove regulators, use regulator on Discovery board and a 5V USB source.