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| --- | --- | --- | --- | --- |
| Trial No | Conditions | Time to Break Point | Success | Notes |
| 1 | * Relay and burn resistor connected | N/A | No | * Relay tripped (NC -> NO) * No current went through the burn resistor * Power supply 1 went from 5V to 0V, power supply 2 went from 5V to 2.44V |
| 2 | * Burn resistor connected without relay | N/A | No | * Power supplies still did not deliver enough current |
| 3 | * Burn resistor connected * Changed power supplies | 27.39 seconds | Yes | * The power supplies were now able to supply enough current * More tension was put on the burn wire |
| 4 | * Burn resistor and relay connected | 49.62 seconds | Yes | * Again, more tension was applied to the burn wire * Relay tripped and allowed enough current to pass through to heat up the resistor |

Burn Wire Test Results (Session 1)

Burn Wire Test Results (Session 2 w/ Nichrome)

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| Trial No | Conditions | Time to Break Point | Success | Notes |
| 1 | * Relay and burn resistor connected * Nichrome wire connected to end of burn resistor | 10.76 seconds | Yes | * Relay tripped (NC -> NO) * Voltage originally showed 3.4V and had to be increased to 5V |
| 2 | * Relay and burn resistor connected * Nichrome wire completed the circuit; connected to negative terminal of power supply | 6.21 seconds | Yes | * The wire heated up substantially in a small amount of time * The smell of the burn wire was present * There was a clean cut in the line this time; no curling |