Nichrome Wire Circuit:

**SPSRM - Thermal Knife Power Circuit**
(Note that there needs to be two of these circuits, one for each thermal knife, on the PCB)

This is the signal input to the circuit. 3V (GND) to this charges the capacitor and 5V cuts off the charging power supply and discharges the capacitor through the thermal knife.

- **N-Channel Mosfet** (Actually DMG3420U Fet)
- **AP9455GEM**
- **M3**
- **R3**
- **C1**
- **10 Farad super-capacitor stores the energy to fire the thermal knife**
- **R2**
- **10K**
- **P-Channel Mosfet** (Actually DMG3415U Fet)
- **FD66575**
- **M2**
- **12V power source for charging super-cap**
- **R6**
- **R5**
- **GND 470 120**

Voltage divider to drop 12V to 2.4V to charge the super-cap

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Eagle Schematic for Housekeeping PCB: