**intro: flat-pack explosive (squib)**
This is a small electrically triggered flat pack explosive. Commonly called a "squib", it is often used in stage and film to trigger various special effects.

*** WARNINGS:***
- THIS INSTRUCTABLE INVOLVES HAZARDOUS MATERIALS.
- OXIDATION HAZARD.
- EXPLOSION HAZARD.
- YOU CAN HURT YOURSELF.
- NOT FOR CHILDREN.
- FOLLOW DIRECTIONS CAREFULLY, AND USE COMMON SENSE.

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**step 1: gather materials**
Materials you will need:
- nichrome wire (for igniter). Failing this, you can use some thin (30 AWG) copper wire
- medium gauge (16 AWG or so) insulated wire (stranded), for trigger wires
- normal bond paper
- cellophane tape
- aluminum powder
- potassium perchlorate

Tools you will need:
- wirecutters
- wire strippers
- a small scale (capable of weighing small numbers of grams accurately)
- a metal cylindrical roller
- an anti-static computer bag

http://www.instructables.com/id/flat-pack-explosive-squib/
step 2: make fuse
This is the electrical fuse for the squib.
First, cut two pieces of your fuse wire, 1 to 2 feet long. Strip both ends.
Next, cut a small piece of your igniter wire, about 1.5" long.
Twist one fuse wire to each end of the igniter wire.
Double the ends of the igniter wire over, to add mechanical integrity
Straighten the whole thing out.
1. igniter wire

1. stripped

1. twist securely

1. bend the end of the igniter wire over, to add mechanical strength

1. finished fuse

http://www.instructables.com/id/flat-pack-explosive-squib/
**step 3: make flash powder**
See the other instructable, "flash powder".
Make about 1 to 1.5 grams of flash powder for each squib.

Image Notes
1. small amount of flash powder mixed in anti-static bag.

**step 4: cut paper**
Cut the paper wrapper. Simple: It is a square piece of white paper, about 4" by 4". That's all!

**step 5: measure flash powder into wrapper**
Lay your igniter across the wrapper.
Pour 1 to 1.5 grams (about 1/2 tsp) of flash powder onto the igniter.
Make first fold about 40% of the way up the wrapper.
step 6: second fold
Fold the top of the wrapper down, and tape in place.

step 7: end fold
Fold one end of the wrapper over, including the fuse wire, and tape in place.
step 8: final fold

Turn the open end of the wrapper up, and jiggle the wrapper to settle the flash powder deep into the wrapper.

Turn the wrapper over, and place flat on the table.

Fold the open end across, on the opposite side as the first end you folded. Include the fuse wire in the fold.

Tape in place.

Wrap another piece of tape around the entire squib for good measure, to keep it from spontaneously untaping.
step 9: storage
Store until use in a cool, dry place. Best to store in an antistatic bag.
Keep away from children, pets, other chemicals, and sources of ignition.

step 10: use
Strip the ends of the fuse wires. Attach to a plug or otherwise so you can put 120 volts AC across the fuse wires. Plug into a long extension cord (at least 25').

To ignite:
- Step WAY back (at least twenty feet),
- get hearing protection (it's about as loud as a good-size gunshot),
- clear the area of bystanders, and post spotters so no one goes near the charge
- plug it in -- BOOM!!
- be sure to unplug before picking up the pieces!