

DIY

SPY



# HOMEBREW ALARM PURSE



Wire up a safety system with geek chic.

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The Alarm Purse is a simple, fashionable way to add an audible alarm to your handbag. Tuck it away when you don't need it (so it won't go off by accident) and quickly hook it up when you do.

The latest addition to the ongoing Aphrodite Project ([theaphroditeproject.tv/diy](http://theaphroditeproject.tv/diy)), the DIY Alarm Purse is part of a series of artworks and DIY projects that draw on the innovations of the courtesans of antiquity to improve the conditions of 21st-century women — empowering everyone with tools they can make to stay safe.

## 1. Make the alarm.

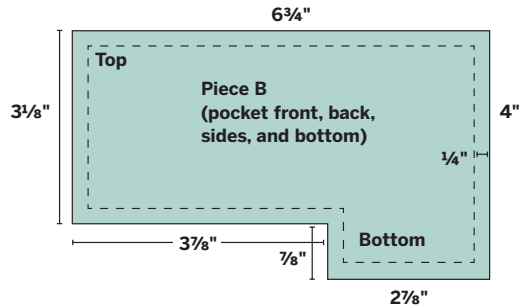
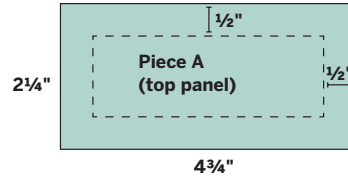
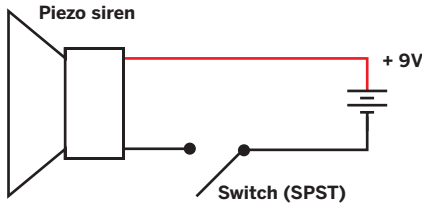
**1a.** Place the piezo siren inside the purse facing outward, allowing it to rest on the bottom. Measure the distance from the top of the siren to where the switch feels comfortable to hold. The top of the siren will be about 3" from the bottom of the purse.

**1b.** Cut 2 lengths of 22-gauge wire long enough to connect the siren to the switch, and strip both ends of each wire (Figure A, page 116). Solder 2 ends to the terminals of the switch. If you're using a larger switch with holes in the terminals, thread the exposed wire ends through the holes in the metal switch terminals, then twist, as in Figure B.

Cut two 1" pieces of heat-shrink tubing to cover the connections (Figure C). Slide the heat-shrink tubing up and shrink it around the terminals using a lighter or heat gun (Figure D). If you use a lighter, move the flame quickly back and forth; don't let it rest in any one spot. Once the tubing has shrunk and cooled, pull gently on the wires to make sure you have a secure connection.

**1c.** Cut a strip of leather to cover the wire pair, from the switch to almost the ends, leaving about

## Alarm Wiring Assembly and Pocket Pattern



### MATERIALS

#### Purse

Leather or vinyl scraps to match or contrast with purse

Fabric scraps

Velcro

Barge cement or other heavy-duty glue for leather

12V DC 102dB Piezo Siren audible alarm RadioShack part #273-079 or similar from All Electronics ([allelectronics.com](http://allelectronics.com))

9V battery

9V snap connector RadioShack #270-325 or similar

Push-on, push-off switch All Electronics #PB-166, RadioShack #275-1565, or similar

1" heat-shrink tubing RadioShack #278-1611 or similar

22-gauge wire

Thread

### TOOLS

Leather punch

X-Acto knife, Olfa knife

Ruler

Wire strippers

Paper and pencil for patterns

Lighter or heat gun

Soldering iron, solder

Sewing machine

Chalk, tape, paper clip

2" exposed. Make a paper pattern first to test the fit. The leather should be approximately 1 1/4" wide at the top to allow for the switch, and taper down to 1" at the bottom. Fold the leather in half lengthwise and sew it together, then slide the 22-gauge wires through using an unbent paper clip.

**1d.** Strip the wire ends of the snap connector and the siren, leaving 1/2" exposed. Attach the snap connector to the battery. Place a 1" length of heat-shrink tubing over the black wire from the siren, then twist this wire to the black wire from the snap connector. Fold the twisted pair back on itself, slide the heat-shrink tubing over the connection, then use a lighter or heat gun to shrink the tubing around the connection.

Using the same method, connect one of the switch wires to the red wire on the siren, and connect the other switch wire to the red wire on the snap connector. Use 2 short and 2 long pieces of heat-shrink tubing to cover as much of the exposed wire as possible. Test your alarm. It should be ear-piercingly loud.

## 2. Make the fabric pocket.

**2a.** Use the pattern diagram above and cut 2 pieces



A



B



C



D



E



F

**Fig. A:** Strip the ends of the 2 strands of 22-gauge wire. **Fig. B:** If you're using a larger switch with holes in the terminals, twist the wire together. **Fig. C:** Cut 2 pieces of heat-shrink tubing to cover the connections.

**Fig. D:** If you're using a lighter to shrink the tubing around the terminals, move the flame quickly. **Fig. E:** Insert the alarm system into the pocket. **Fig. F:** The speaker holes on the outside.

of fabric to make the pocket: piece A for the top panel, and piece B for the pocket front, back, sides, and bottom. Add chalk lines for sewing. Sew the top fold of the pocket (B), then sew the bottom to the front, back, and sides of the pocket (B). Be sure to line up the chalk guidelines.

Next, sew 3 sides (2 long, 1 short) of the top panel (A). Fold over the edges twice for a nice, finished look. Fold the unsewn side of the top panel, and sew it to the side of the pocket. Use the pocket seam to line up the top panel.

**2b.** Cut 3 pieces of velcro: 1 approximately  $\frac{5}{8}$ " $\times$  $\frac{7}{8}$ ", 2 approximately 1" $\times$  $\frac{5}{8}$ ". The 1" pieces will go on the front of the pocket, and the  $\frac{7}{8}$ " piece will go on the side to secure the top panel to the pocket.

**2c.** Insert the alarm system into the pocket (Figure E). Attach the velcro around the speaker (don't block it) and to the top panel.

### 3. Attach the pocket.

**3a.** Make a pattern first, then cut a patch out of matching/contrasting leather or vinyl, slightly larger than the siren speaker, with small holes to let the sound of the alarm out. If you're using a leather

punch to make the holes, tape the pattern to the leather first to ensure that they line up.

**3b.** Place the siren back in the pocket and insert it into the purse. Line up the pattern on the outside of the bag with the siren on the inside. Cut a hole in the bag slightly smaller than the pattern, to allow enough room to glue the patch along the edges.

**3c.** Attach the velcro to the inside of the purse, lining up the siren speaker with the hole. If the velcro comes loose when you remove the pouch, you may want to sew the corners into the lining or glue it with heavy-duty adhesive.

Glue the leather patch over the hole with shoe glue or other heavy-duty cement (Figure F).

## 4. Try out your alarm setup!

As the battery wears down, the alarm will get quieter, so be sure to test it before you go out.

➤ A PDF of the pocket pattern and wiring schematic are online at [makezine.com/19/diyspy\\_purse](http://makezine.com/19/diyspy_purse).

Learn about the Aphrodite Project at [theaphroditeproject.tv/diy](http://theaphroditeproject.tv/diy). See more of Norene Leddy's work at [nobetty.net](http://nobetty.net).