Simple Electronics Project for Scientist in School

Goal: Create a simple affordable electronics project using no special tools.



Parts

Quantity	Description	Suppliers	Cost Each	Cost in Bulk
1	5mm LED. E.g. Red, Yellow, Green, White	Jaycar	\$0.30	\$0.02
1	100-ohm resistor ½ watt rating	Jaycar	\$0.16	\$0.02
35 mm	3 mm white heat shrink tube (comes in 1.2 m lengths)	Jaycar	\$0.06	\$0.02
1	CR2032 battery	eBay	\$0.31	\$0.20
1	Masking tape (50 m rolls), need 10 cm per project.	Bunnings	\$0.01	\$0.01
1	A4 Card, 10 projects per card.	Officeworks	\$0.02	\$0.02
	Cost per Project		\$0.89	\$0.29

Scissors are required to cut the heat shrink and the card to business card size. This can be done ahead of class.

Extra creativity skills can be used to make your own cards.



Construction Steps

- 1. Twist the short lead in the LED with the resistor.
- 2. Slide the heat shrink tube over the resistor and twisted wire section.
- 3. Make circles with the lead ends.
- 4. Use masking tape with rolled end on the back of the business card. Position this near the top centre.
- 5. Place the LED lead on the masking tape.
- 6. Put the battery with writing side down over the LED lead.
- 7. Adjust the heat shrink side lead to hover over the middle of the battery (non-writing side).
- 8. Place a large piece of masking tape across the card back, heat shrink lead end and battery.



Other Card Designs



