

### General

- Don't lose it!
  - Put your name/email on your board, cables, and plastic case.
    - ...
      put label on plastic case.
  - Don't leave it laying around:
     it looks cool, and might "wander off"
  - 1 student left on bus.

### General

Plugging/Unplugging

plugging/unplugging the cape, or connecting pins to headers!
(1 student fried BBG by shorting 5V to something)

- USB and Ethernet be OK to hot-swap.
- Power board from 5V
  - Use either USB, or some power pins on headers.
     (1 group fried a BBG by powering from 12V)

## Electrostatic Discharge (ESD)

- Static electricity can very easily damage electronics.
  - The high static voltage will "punch through" the electronics making them malfunction.
  - Especially problematic in..
  - Don't wear fuzzy slippers and a polar fleece robe while working on board.
- Ground yourself before touching board
  - Touch unpainted metal case of power supply, or USB port on your grounded desktop PC.
- Take care when using push buttons.
  - Don't press buttons with metal pen, pencils, etc.
  - Try not to touch chips on board or headers.

## Pin capabilities

- BeageBone's CPU...
  - The AM335x microprocessor runs at 3.3V
    - Does not tolerate 5V applied to its pins: doing so can fry the CPU.
    - 1 student shorted 5V to GPIO pin; board dead
  - Some pins are 5V, others are 3.3V
     (USB is 5V).
    - Don't cross the streams.
- Don't short power pins to ground.
  - 1 student did; board dead
  - 1 student ran 3.3V through an LED to ground (no resistor); board dead.



## Liquids

- General idea:...
  - Keep your drink on the opposite side of your computer from the board.
- Cleaning if you do spill on your board:
  - Disconnect all cables & power.
  - Run board under water from tap for 10 minutes.
  - Dry it off well using...

# Physical Damage

- Case should <u>help</u> protect board from falls.
  - Rubber feet should help prevent falls.
  - Come see me if suspect damage; may be repairable (at your expense).
- Carrying Suggestions
  - Transport board inside anti-static bag.
  - Protect board using the provided plastic box.
  - Make sure your name is on the case and cables
    - 90+ identical copies floating around!
  - Pickup circuit board by the edges.

## Summary

- The board is yours!
   Enjoy it, but take good care of it.
- Treat eval-board carefully; it is good quality, but easily damaged.
  - Be careful about static electricity.
  - Keep liquids away from it.
  - Protect it from physical damage.
- Repairs to damage may be possible, but likely at your expense.