Eval Board
Care and feeding Instructions
General

• Don't lose it!
  – Put your name/email on your board, power supply, 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 BBB by shorting 5V to something)
  - USB and Ethernet be OK to hot-swap.
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.
- 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

- BeagleBone’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 help 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.