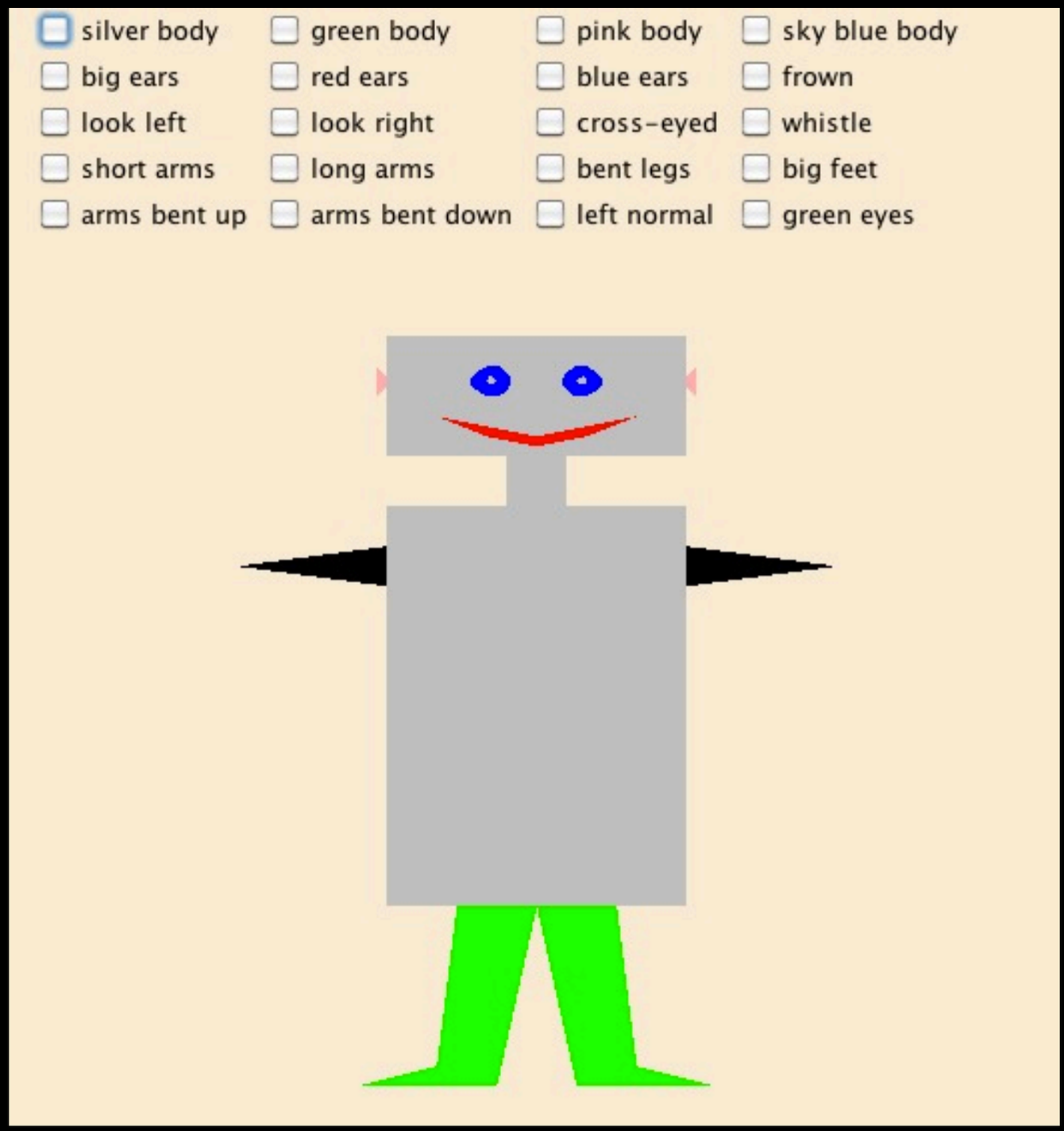
Slides for the Week

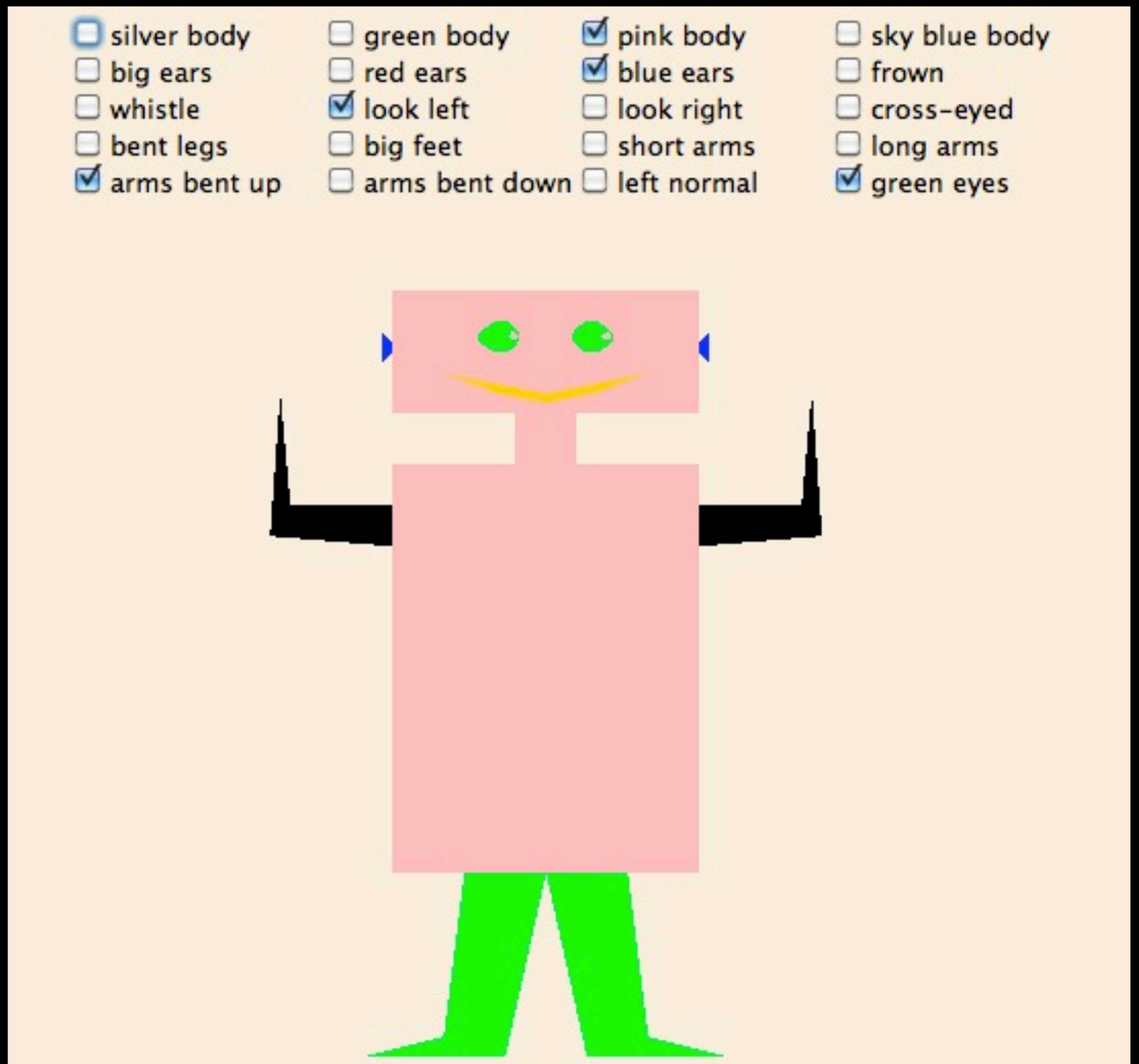
CS273 Laboratory 4

This week's lab focuses on if-statements.

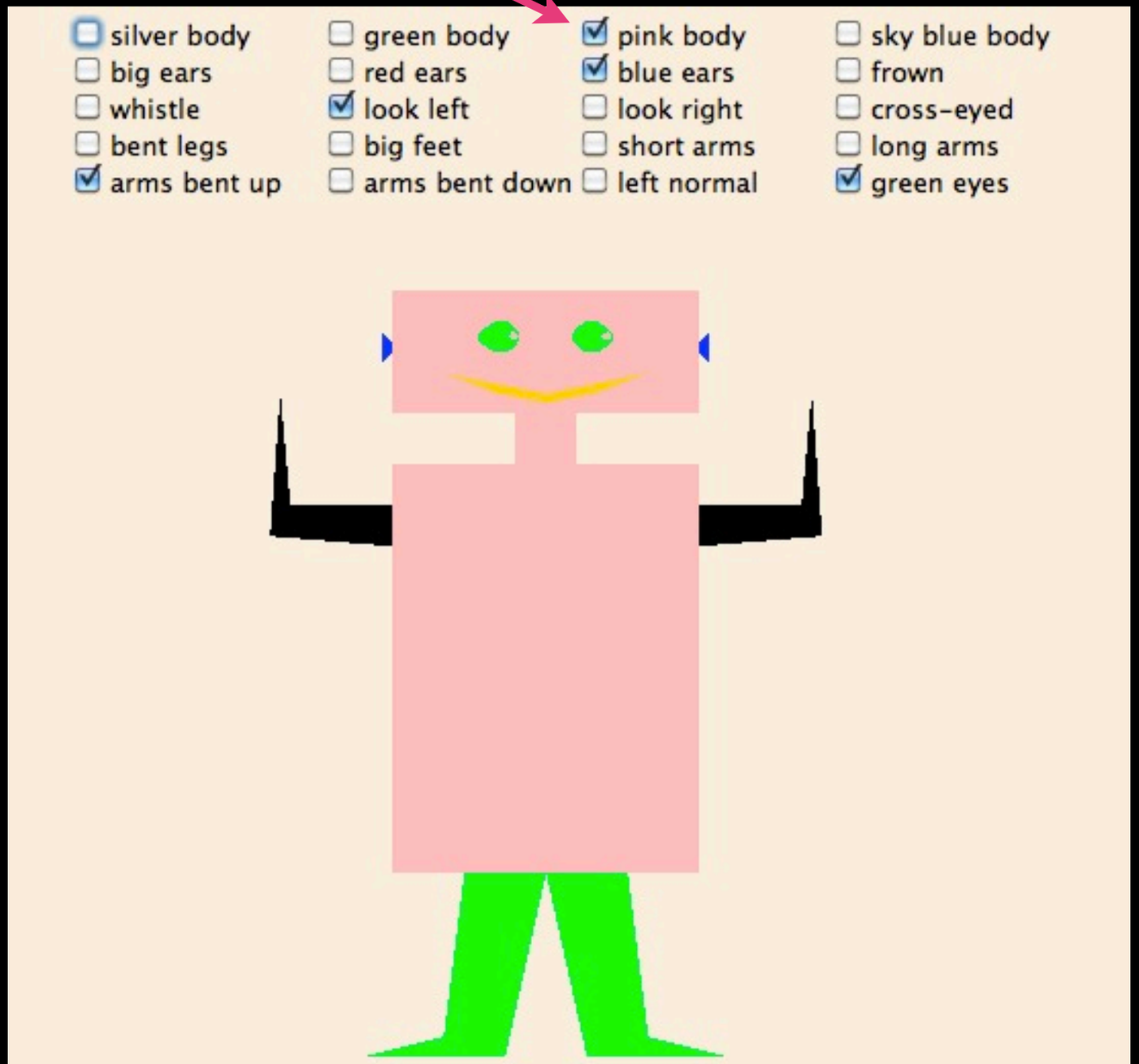
To practice if-statements, you'll be adding functionality this existing interface:



When you've finished the lab, you'll be able to click the different boxes and modify the look of the robot:



e.g., this robot has a pink body because "pink body" was checked:



And while it **seems** like you need to use the graphics library for this, please note that all of the robots body parts have already been drawn for you.

Your code won't draw anything; it should just "fill" these pre-coded parts.

```
public void paint(Graphics g) {

        // Custom color
        Color silver    = new Color(192,192,192);

        // Draw the robot's body.  First, choose the
        // the color of the robot based on the boxes
        // that are checked in the interface:
       if (isChecked("silver body"))
       {
           g.setColor(silver);
       }
```

```
 else if (isChecked("pink body"))
{
    g.setColor(Color.pink);
}
 // Draw the supplied body part.
 g.fillPolygon(body);

...
```

```
public void paint(Graphics g) {

        // Custom color
        Color silver    = new Color(192,192,192);

        // Draw the robot's body.  First, choose the
        // the color of the robot based on the boxes
        // that are checked in the interface:
```

This sample code just fills a polygon called "body." This "body" was supplied in your starter code.

```
 else if (isChecked("pink body"))
{
    g.setColor(Color.pink);
}
 // Draw the supplied body part.
 g.fillPolygon(body);

...
```

The handout "Robot Body Parts" on the Moodle site lists all available parts:

Complete list of predefined body parts for your robot:

- `body` - the robot's body
- arms
  - `leftArm` - the robot's left arm, normal length, straight
  - `rightArm` - right arm, normal length, straight
  - `longLeftArm` - left arm, long, straight
  - `shortLeftArm` - left arm, very short
  - `longLeftArmBentUp` - left arm, long, bent up
  - `leftArmBentUp` - left arm, normal length, bent up
  - `longLeftArmBentDown` - left arm, long, bent down
  - `leftArmBentDown` - left arm, normal length, bent down
  - `longRightArm` - right arm, long, straight
  - `shortRightArm` - right arm, short
  - `longRightArmBentUp` - right arm, long, bent up
  - `rightArmBentUp` - right arm, normal length, bent up
  - `longRightArmBentDown` - right arm, long, bent down

Good Luck!

If you have any questions the TAs and I are happy to help.