Fill in details about the following aspects of prosthetic limbs:

1. **Purpose and benefits of prostheses (artificial body parts):**
   - To restore functionality and capabilities of lost limbs.
   - Enables patients to regain mobility, conduct daily living activities, keep a job, etc.

2. **Design considerations:**
   1. **Location:** Does a joint need to be replaced? What functions should the prosthesis be able to perform? Does it need to appear natural?
   2. **Strength vs. weight:** The prosthesis needs to be strong enough to be durable (and possibly support body weight if it is a lower limb), but light enough to be easily moved.
   3. **Attachment method:** How will the prosthesis be securely attached to the body, yet still permit it to move as needed?
   4. **Available materials:** What materials are available to fabricate the prosthesis? What materials make sense for the particular prosthesis?
   5. **Cost:** How much will the finished prosthesis cost? Is the cost reasonable for patients to afford?

3. **Parts of a prosthesis:**
   1. **Interface (socket):** Where the prosthetic device meets the remaining part of the limb. Usually includes some kind of suspension system /attachment method.
   2. **Components (pylon):** The internal working parts of the prosthesis.
   3. **Foot:** Or hand, in the case of an arm prosthesis.
   4. **Cover:** The prosthesis may be covered in a material to make it look more lifelike.

4. **Four main types of artificial limbs:**
   1. **Transradial:** A prosthesis that replaces the arm from below the elbow (includes the wrist, hand and fingers).
   2. **Transhumeral:** A prosthesis that replaces the arm from above the elbow (includes the elbow, wrist, hand and fingers).
   3. **Transtibial:** A prosthesis that replaces the leg from below the knee (includes the ankle, foot and toes).
   4. **Transfemoral:** A prosthesis that replaces the leg from above the knee (includes the knee, angle, foot and toes).