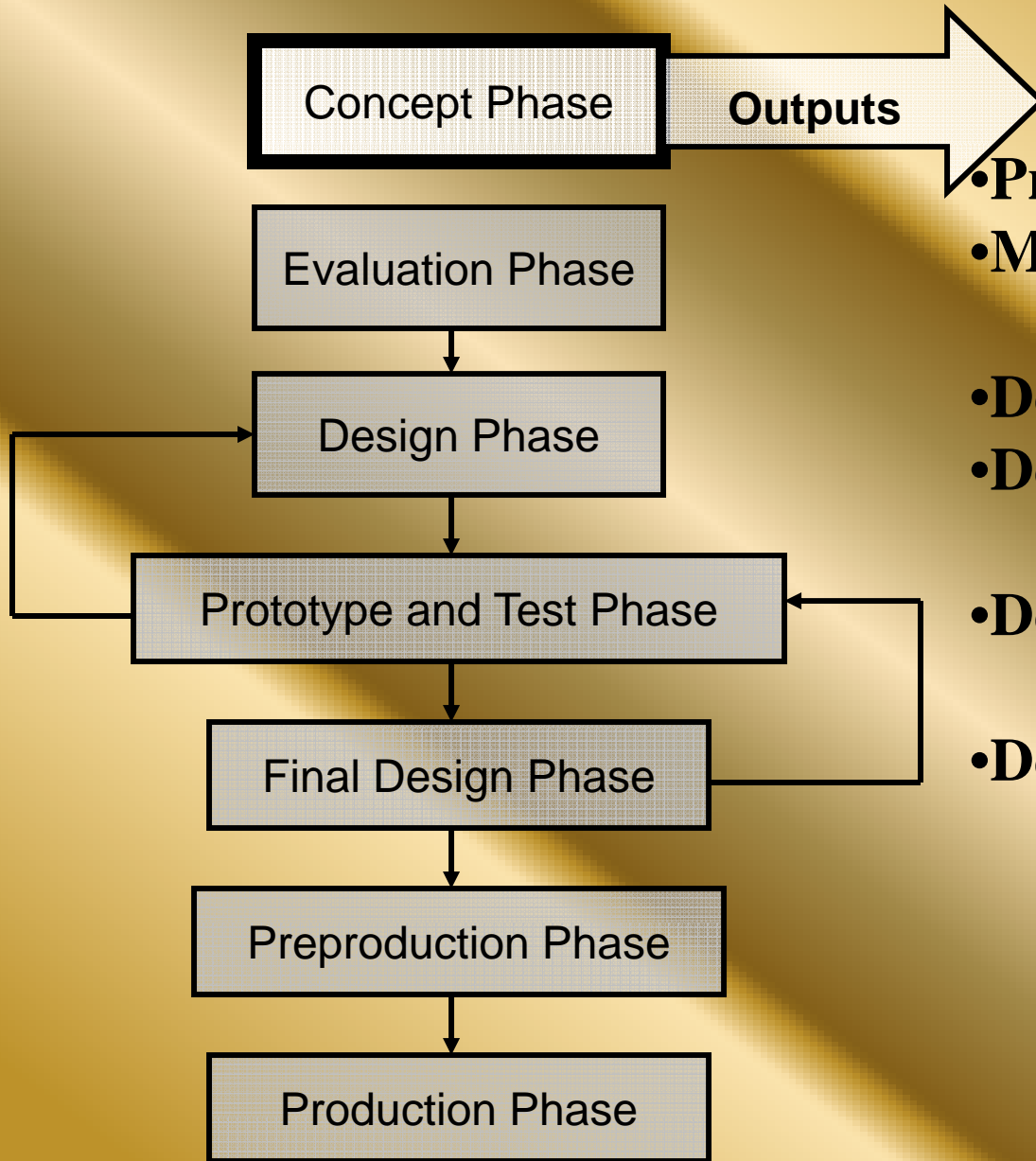


# Concept Phase

- **Ease of Use,**
- **Ergonomics: Compact and Balanced Overall User Comfort,**
- **Other Human Factors:**
  - **Color: functional, signaling**
  - **Identity, texture and finish**
  - **Finger pinch points, ergonomics, minimize repetitive motions**
  - **Safety, review of product liability concerns**
  - **Graphics: operational, identification, regulatory**
  - **Appearance, Visual factors**
  - **Graphic production artwork as required**

# Concept Phase

- **Minimum Overall Size and Number of Components**
- **Styling Issues - Preliminary Industrial Design**
- **Integration of existing off the shelf part(s)**
- **Appropriate Manufacturing Methods**
- **Tooling and Part Cost Analysis(Budgetary)**
- **Assembly Issues,**



- **Proof of Concept Model**
- **Multiple Conceptual Sketches**
- **Description of Operation**
- **Description of Performance Requirements**
- **Description of Aesthetic Features**
- **Detailed Design Specification**

# Design Specification

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- User environment details**
  - Description of product set up and operation**
  - Detailed List of Features and Capabilities**
  - Outline of worst case and worst environment usage**
  - Product life requirements**
  - End of Life Disposal Requirements**
  - Prototyping plan**
-

# Design Specification

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- Prototype functional requirements**
  - Testing requirements and plan outline**
  - Certification requirements**
  - Material requirements, desired materials schedule**
  - Price and cost targets**
  - Point of sale packaging or labeling requirements**
-

# **Prototyping, Pre-Production and Production Quantity Requirements**

- **How Many will be Needed?**
- **What will Prototypes be Used For?**
- **How Many Iterations of Prototypes Will be Required?**
- **These Quantity Requirements Determine Design and Cost Models**