

# Computer Input Device Product Design Specification

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**Function:** The computer input device must assist the client in using his personal computer.

**Client requirements:**

- Ease of use
- Speed of assembly
- Stability

**Design requirements:**

- Cannot irritate skin
- Sensitive enough to access entire screen
- Easy to plug in

## 1. Physical and Operational Characteristics

**a. Performance requirements:** The computer input device must be durable enough to withstand approximately eight hours of continual daily use.

**b. Safety:** The device cannot have any sharp or rough edges and it must not irritate the client's sensitive skin.

**c. Accuracy and Reliability:** The device needs to be extremely sensitive and precise so that the client has full use of his computer.

**d. Life in Service:** The device should have at least the same lifespan of a standard computer mouse.

**e. Operating Environment:** The device will be used in the client's home and therefore could be exposed to cornstarch and dust.

**f. Ergonomics:** Every part of the device must remain stationary while in use.

**g. Size:** The size of the device must be small enough so that the client can use it but large enough so that it fits comfortably.

**h. Weight:** The device must be heavy enough so that it remains stationary. Running along the same lines, a heavier teat cup would require more suction to stay on, which would cause more tissue congestion.

**i. Materials:** Any materials that contact the client must be cushioned or soft due to the client's sensitive skin.

**j. *Aesthetics, Appearance, and Finish:*** The device does not need to satisfy any aesthetic requirements.

## **2. Production Characteristics**

**a. *Quantity:*** One prototype needed.

**b. *Target Product Cost:*** Less than the \$200 budget.

## **3. Miscellaneous**

**a. *Standards and Specifications:*** Our new device must meet and/or exceed the standards of the current input device.

**b. *Customer:*** The user will be a person who has muscular dystrophy.

**c. *Competition:*** The competition is the current device that the client is using.