For this answer I am assuming that the device is meant to rehabilitate paralyzed body parts with the goal of restoring full functionality. The company currently produces implantable nano-chips which produce coupled signals to the affected body part and the brain in order to strengthen the damaged brain and spinal connections to the affected area. I will be arguing in favor of switching to a wearable device which achieves the same effect by the same method.

Defining the problem:

1. Setting up the device for therapy sessions could be problematic, especially if there is not someone there to help the patient.
2. Patients might be embarrassed to use the device in public.
3. Ensuring durability and efficiency in the presence of exposure to outside-of-body conditions could prove costly.

Identifying Potential Solutions:

1. A. The device could be programmed to configure itself to a suitable state as to facilitate the patient to be able to apply the device to the affected area. For instance, a glove for a paralyzed hand could be lined with struts which straighten out the glove for easy application.

B. For application to more difficult areas such as an entirely paralyzed leg, the device could be implemented in the form of bands instead of sleeves to allow the patient to perform self-application.

1. A. The design could be made lightweight and flexible enough to be worn under clothing.

B. In the case of hand gloves attention to aesthetics could make the glove look fashionable.

1. A. While it is true that conditions would be more varied outside of the body, the cost of simply replacing device electronics would be less than the cost of also having to perform a surgery in the case of an implant failure.

B. The electronic components could be secured in a way which closely resembles the conditions of the internal environment of the human body using materials such as silicone.

Proposing a Detailed Solution:

The design direction will include 1A, 2A, 2B, and 3B. The device will be designed to configure itself based on the needs of the patient in order to facilitate easy application of the device. The device will be designed to be lightweight and flexible, so patients can wear it under their clothes where possible and when it must be visible, aesthetics will be a major focus. The design will include specifications to mimic conditions which are internal to the human body, so the actual device electronics modifications due to the transition from implant to wearable will be minimal.

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