

At-Home Physical Therapy Device for Hemiplegic Patients

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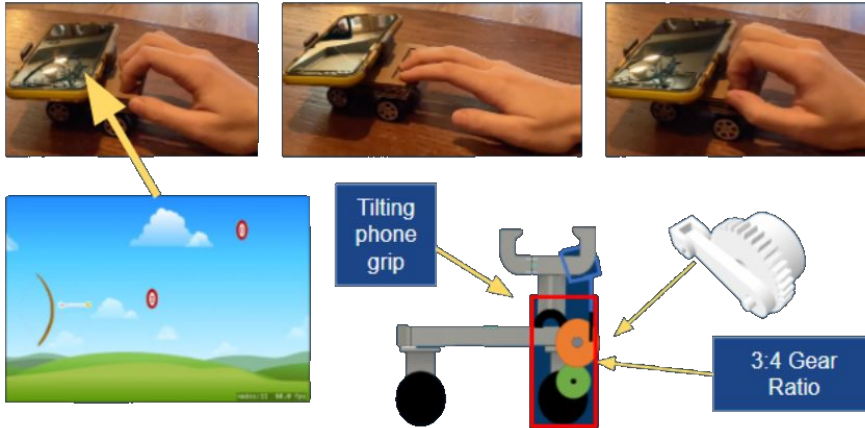
Problem

- Low/no compliance of at-home physical therapy exercises
 - 70% of PT patients did not comply with exercises
- Current treatments are expensive
 - \$50,000/yr for physical therapy

Goal

Create an engaging method to encourage independent and consistent practice of hand flexion and extension in hemiplegic patients

Product Design



Solution

An app compatible with patient's smartphone that is accessible, has R/L hand compatibility, an accommodating ROM, and does not cause wrist strain (10-30°)

Value

Device will be 3D printed, cost ~\$10-20. App is free. More affordable alternative to current market devices. At-home device can save on cost of PT appointments

Significance

- Will help improve quality of life for stroke or CP patients
- Can expand to burn victims and patients after orthopedic surgery