IAT 336: Rubric for Evaluating Assistive Device Proposals

Task: Using this template, <u>please evaluate each of your proposed ideas for the assistive device</u> project. For each proposal, you will use the table as an evaluation tool. Based on the findings, you will then meet as a group and decide on the best proposal to go ahead with.

Proposal Number _____

Title: Accesable Wallet _____

Category:

Aids for Daily Living	Adaptive Gaming	Adapted Toys	Assistive Switches/Controls
Recreation and Leisure	Computer Access	Environmental Controls	Communication Aids

(Aids for Daily Living is circled)

1. **Context of Use:** Describe in a sentence why and where the assistive device will be used (e.g. task and environment). In other words, why does the client need the device?

    Activity:
    Removing cards from a wallet while standing or sitting. Possible using 2 hands or 1 hand depending on how you count. I'm thinking 1 hand to make the card accessible, the other to remove it or enough to make it 'presentable' for tap-pay or bus.

    Environment:
    When required to take a card out of a wallet mostly when shopping, but also possible for bus or access card

2. **Disability:** Describe the medical condition or disability that the client has? What are the physical constraints that this disability causes?

    Parkinson's / Arthritis - Difficulty with fine motor skill weakness

3. **Human Factors:**

a. Appendages: How is the proposed/current device used?			
Hands and Wrists	Right	Left	Both Hands
Fingers or Digits	One	More (number)	
Other e.g arms or shoulders	identify		

(Both Hands is circled; More (number) is circled; a red X is marked next to "identify")

3. Human Factors Cont'd

b. Posture: How is the device used?
Standing
Sitting e.g. desk   *Possibly sitting too*
Other e.g. kneeling or lying in bed

c. Interaction(e.g. touching button or control)		
i. Duration e.g. 1 second or less, 5 seconds, 10 seconds		
ii. Force: How much force does the button or device require to activate/hold		
Low	Medium	High
iii. Frequency (how often do they interact with the device on a daily basis?		
Low e.g. <2 minutes	>5 minutes	>30 minutes
iv. Does the device require the use of two hands or digits at the same time?	Yes	No
v. Style of interaction (or combination thereof) Please indicate below.		
1. Pinch grip Left hand Right hand	2. Press Left hand Right hand	3. Power Grip Left hand Right hand

Pinch with main hand, hold with off-hand

d. **Materiality:** Based on c. prescribe the materials that you would use to fabricate your device e.g common and uncommon. Describe why you chose those materials.

Common: List	**Uncommon:** List
Plastic	Wood
Rationale:	**Rationale:**
Durable & cheap	Looks nice & is relativly durable

4. **Complexity:** Is the project something that you can reasonable design and fabricate in a six-week period? Are there any computational or electronic needs in the prototyping process? Is the designed product part of a complex assembly or product that will require a lot of coordination with the client? Is the product something that a team of four students can reasonably design and assemble using the materials and prototyping facilities of SIAT? In other words, is a there a process that requires machinery outside of the university e.g. water jet cutter? Conversely, is the device or product overly simple and lacking complexity e.g. one piece 3D printed bottle opener? You will be graded on creativity and challenge.

Lacks Complex :-	**Some Complexity**	**Good ☺ Balance:**	**Complex:**	**Overly Complex:** ☹
Few components. Does not require a lot of coordination.	A small number of components. Does not require a lot of coordination.	A reasonable number of components. Moderate but manageable coordination. Design can be completed by week thirteen.	Some amount of complexity/ components. May not be able to finish by term's end.	Numerous components. Requires a lot of coordination. Will not able to complete by week thirteen.