EasyType

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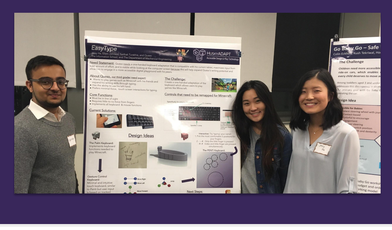


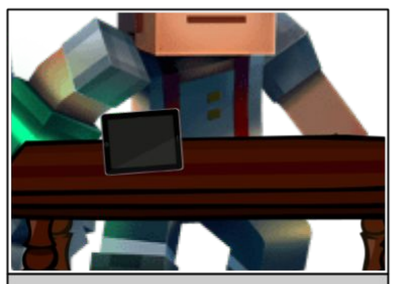
HUSKYADAPT
Accessible Design & Play Technology

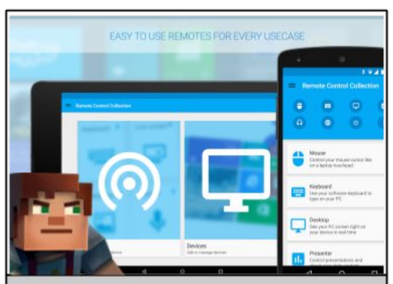
The Challenge

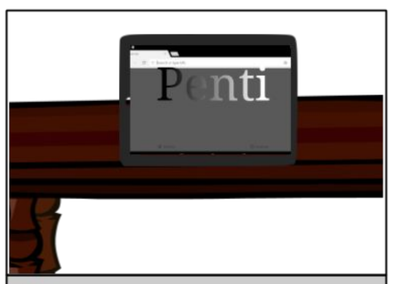
Point of View: Queso needs a one-handed keyboard adaptation that is compatible with his current tablet, and maximizes input from least amount of effort to help expand Queso's writing potential and allow him to engage in a more accessible digital playground with his peers.

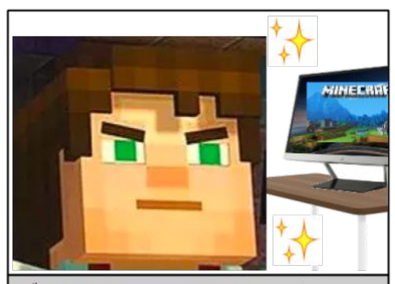
QUESO'S NEEDS	CORE FUNCTIONS
• Wants to play games with his friends and expand his writing skills through typing.	• Must be in line of sight.
• Has the ability to use his left hand.	• Requires little to no force from fingers.
• Prefers minimal-force, touch screen interactions for typing.	• Implements all keyboard functions.

The Solution: Customized PENTI One-handed Keyboard



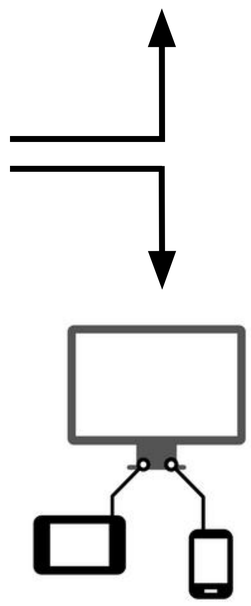




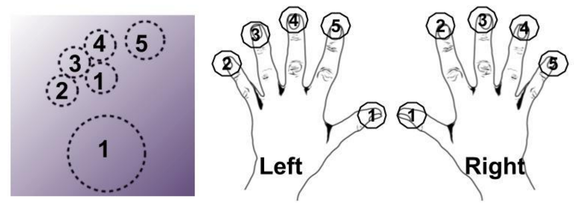


What this Achieves:

- Minimal force required to type due to touch keyboard
- Opens doors to playing online games
- Allows Queso to grow typing skills



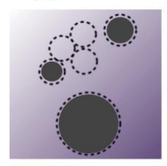
PENTI Tutorial



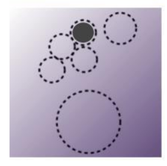
How it aligns with chord: 1 2 3 4 5 / # # - - #

Chord Letter — Simultaneously press shaded in circles

#--# H →



---#- i →



Chord	SHIFT
# ----	SPACE
# --#-	A
# -##-	B
- #-#-	C
# ---#	D
- -#--	E
# #---	F
- --##	G
# #--#	H
- --#-	I
- #--#	J
- ####	K
- ##--	L
- -###	M
- ---#	N
- -##-	O
# ###-	P
# #-#-	Q
# -#--	R
- #---	S
# -###	T
- ###-	U
- #-##	V
# ####	W
# #-##	X
# --##	Y
# ##--	Z

Use this key to play the game!

The Outcome:

1. Regular PENTI keyboard implementation
2. Simplified PENTI keyboard for games

How we Customized Keyboard for User's Needs:

1. Android Studio

2. Reorder letters in array

```
final static int Penti[] = new int[] {
    0, 'n', 'i', 'g', 'e', 0, 'o', 'm',
    's', 'j', 'c', 'v', 'l', 0, 'u', 'k',
    32, 'd', 'a', 'y', 'r', 0, 'b', 't',
    'f', 'h', 'q', 'x', 'z', 0, 'p', 'w'
```

3. Assign letters with easier chords to play Minecraft (W,A,S,D)

Games to Play:

- Type in words as they fall down to win
- Compatible with Penti

Try it out!

The Future

- Include a pointer input in addition to the Penti for mouse function. Eliminates need for smartphone trackpad.
- Implement use of right hand for Queso. Remap whole keyboard for ease of use with right hand.

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