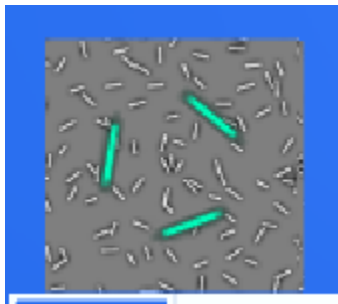# MindTypeWriter

MindTypeWriter is a BCI (Brain-Computer Interface) Keyboard that uses the [NextMind](#) BCI Kit ([*Figure-1*](#)) and [Unity](#) game developer platform. It simulates keystrokes to provide keyboard input to Windows platforms, allowing users to control the environment using NextMind's NeuroTags([*Figure-2*](#)).
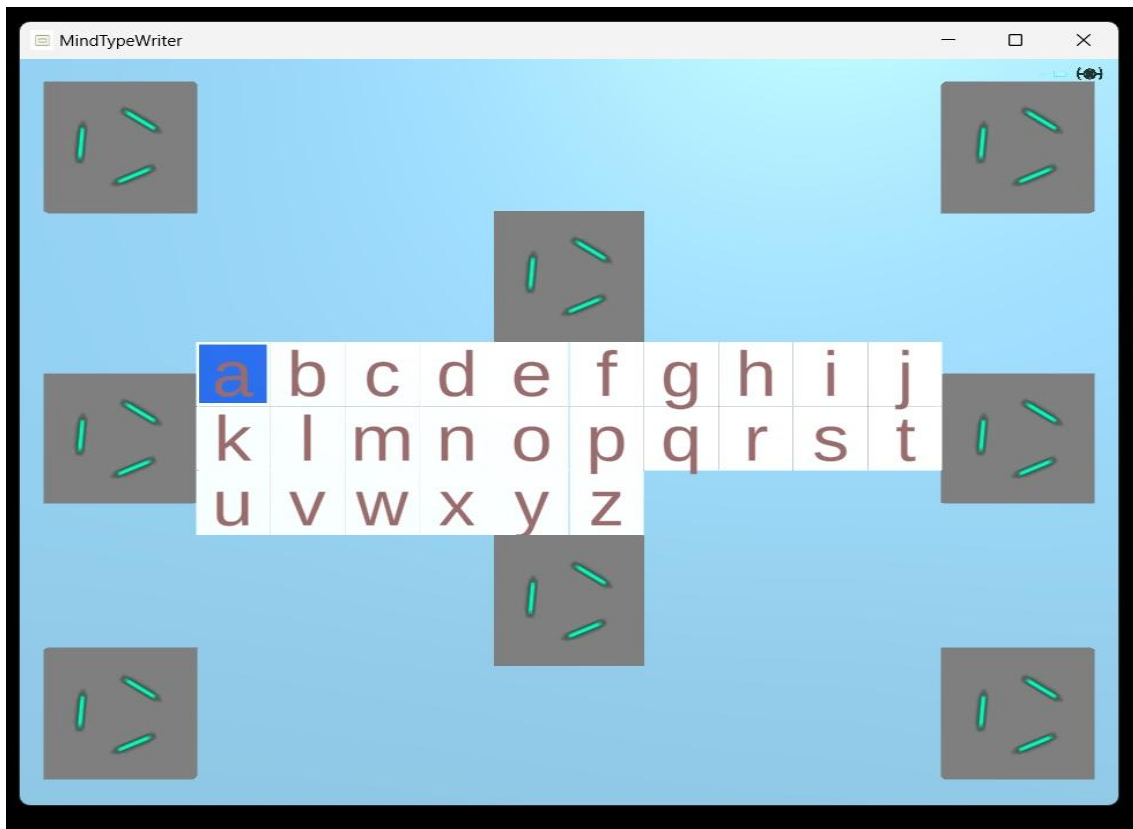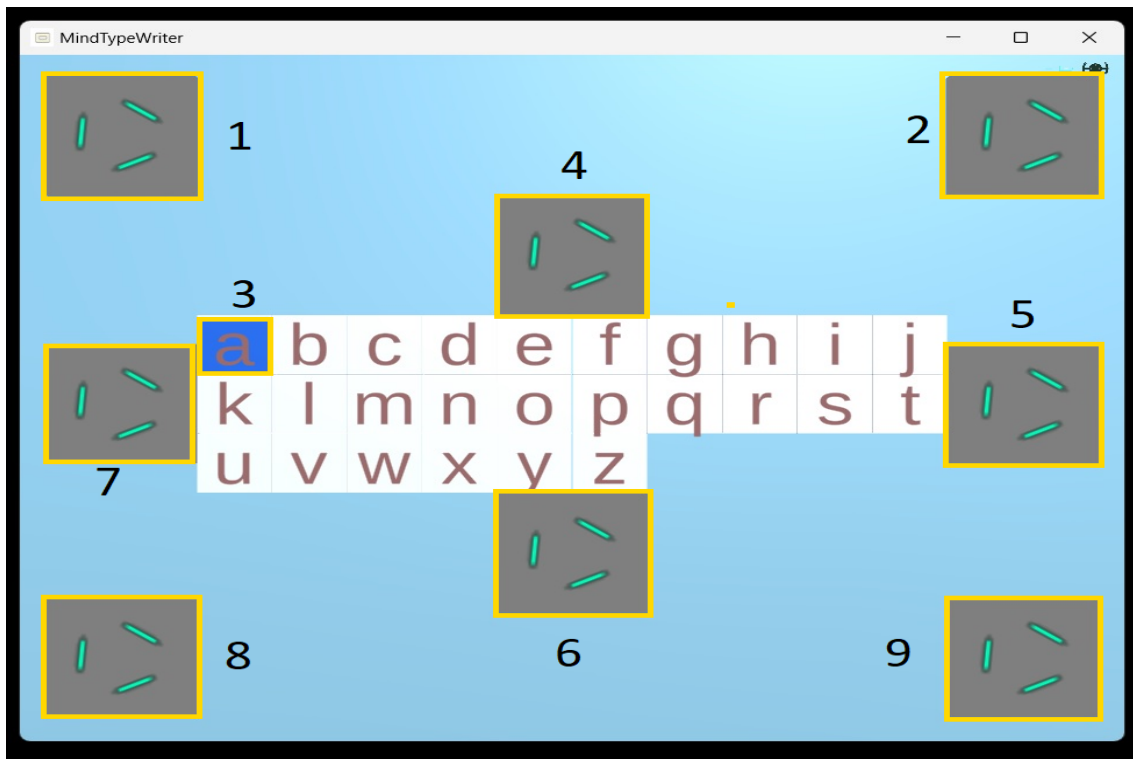

Figure-1: Next Mind BCI kit

Figure-2: Neuro Tags

MindTypeWriter is a proof-of-concept (POC) designed to develop basic interaction between the Windows operating system and the human mind. It is currently in its initial stages (Gen-I) and requires further iteration to optimize user response.The specifications of the MindTypeWriter is as follows.
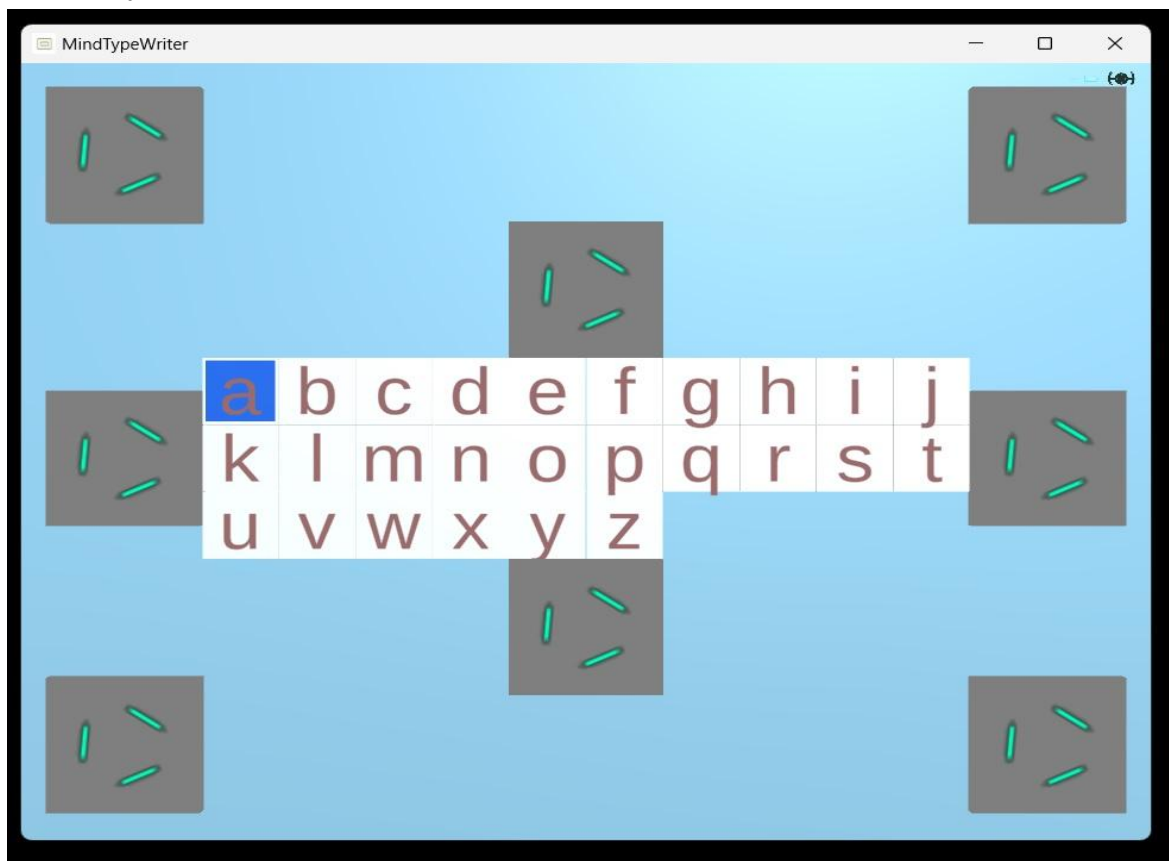
- Default screen size is 950x746.

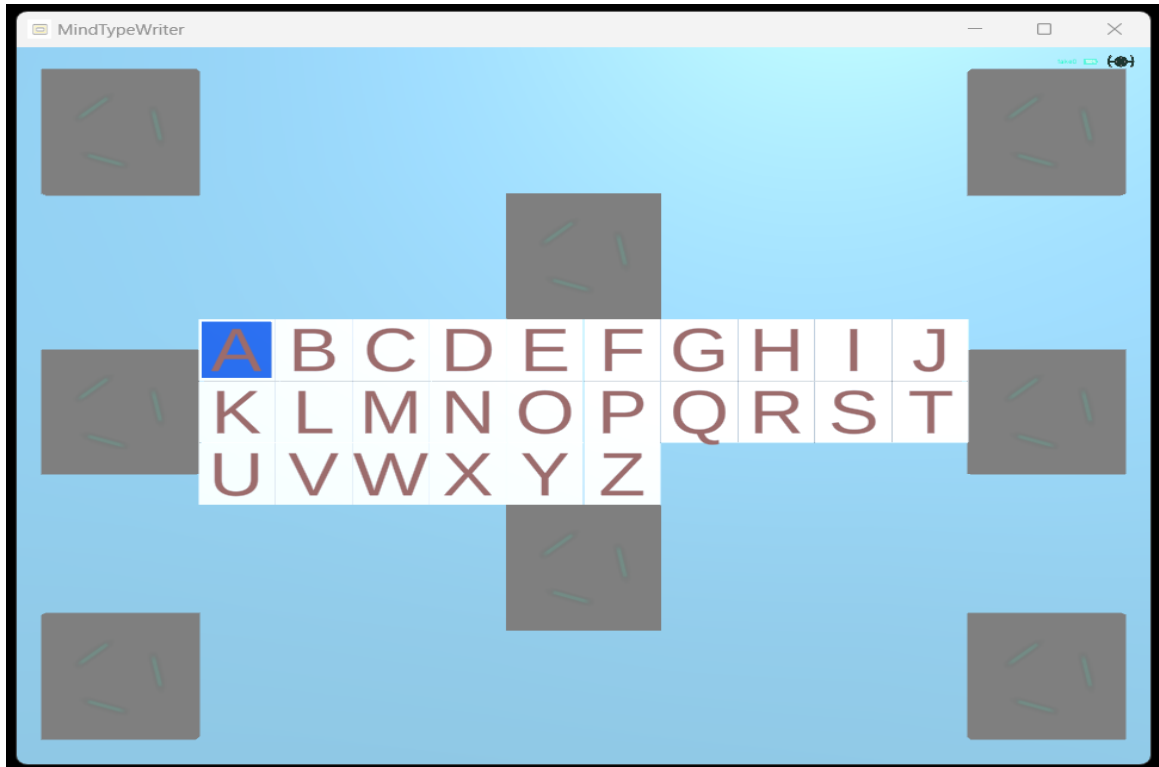- NextMind neurotag description in MindTypeWriter Keyboard

1. **CapsLock/NumLock** - Manage the alphabet and Numeric keys.
2. **Spacebar** - Provide Spacebar keystroke.
3. **Cursor** - Move in the BCI keyboard to select the keys.
4. **Up Control** - It controls the cursor's Up direction movement.
5. **Right Control** - It controls the cursor's Right direction movement.
6. **Down Control** - It controls the cursor's Down direction movement.
7. **Left Control**- It controls the cursor's Left direction movement.
8. **Select Key** - Provides the keystroke the current location of the cursor.
9. **Enter** - Provide Enter keystroke.

Keyboard layout

- Default layout

- CapsLock on layout

- Numeric layout

Numeric layout

In numeric layout different short names are used. The details about them are as follows.

- **VUp** & **VDn**- Volume up and down
- **Up**,**Lft**,**Dwn**, and **Rgt**- Arrow keys Up, Left, Down and Right
- **Hom**, **PgU**,and **PgD**- Home, Page Up, and Page Down

Overall, MindTypeWriter is a groundbreaking idea that has the potential to revolutionize the way we interact with computers. With further development, it could become a game-changer for people with physical disabilities, allowing them to type using NextMind and improving their overall quality of life.

#bci #neuroscience #nextmind #Unity #braincomputerinterface #Chatgpt #Keyboard #Windows