# Why Box World?

A Box World is a world built with Unicode characters. It allows us to focus on developing Caretaker Theory and to build and test the theory. It reduces complexity involved in training CNNs for visual pattern recognition, NNs for Natural Language Processing, Deep Reinforcement Learning Neural Networks for each and every learnable task in this Box World, which require high compute resources, memory, arrays of GPUs, time and effort.

Due to purely hardware resource constraints from my side (lack of compute resources, memory, GPUs, time, etc.), we will use Box World to help with developing and testing Caretaker Theory and to build the world for RoyAI.

In Box World, an Actor, denoted by A, can touch/examine/peek an object in the world or to move into the block containing the object to use/consume it.

A Box World can be scrollable and in such cases the scrollable side will not have World border characters to indicate that navigation is possible there.

## Box World Characters:

|  |  |
| --- | --- |
| **Unicode Character** | **Description** |
| ], [, = | World border |
| |, - | Compound wall |
| “ | Door |
| ~ | Water resource |
| :, . | Viewing direction of Actor |
| A | Actor |
| \* | Drinkable water |
| # | Food |
| ! | Information kiosk |
|  |  |