



of the corresponding **Observation Space** (`Box(4, )`) and **Action Space** (`Discrete(2)`).

<b>CartPole-v0</b>	<code>Box(4,)</code>	<code>Discrete(2)</code>	<code>(-inf, inf)</code>
--------------------	----------------------	--------------------------	--------------------------

As described in the [OpenAI Gym documentation](#),

*Every environment comes with first-class `Space` objects that describe the valid actions and observations.*

- The `Discrete` space allows a fixed range of non-negative numbers.
- The `Box` space represents an  $n$ -dimensional box, so valid actions or observations will be an array of  $n$  numbers.

## Observation Space

The observation space for the CartPole-v0 environment has type `Box(4, )`. Thus, the observation (or state) at each time point is an array of 4 numbers. You can look up what each of these numbers represents in [this document](#). After opening the page, scroll down to the description of the observation space.

### Observation

Type: `Box(4)`

Num	Observation	Min	Max
0	Cart Position	-2.4	2.4
1	Cart Velocity	-Inf	Inf
2	Pole Angle	$\sim -41.8^\circ$	$\sim 41.8^\circ$
3	Pole Velocity At Tip	-Inf	Inf

Notice the minimum (-Inf) and maximum (Inf) values for both **Cart Velocity** and the