



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

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|--------------------|----------------------|--------------------------|--------------------------|
| CartPole-v0 | <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