## **Coordinates Understanding**

#### **Object Understanding**

**Spatial Relationship** 

Answer: The nameplate is

in the upper right corner

Answer: It is a couch.

**Affordance Prediction** 

**Spatial Compatibility** 

Answer: Yes.

Answer: Yes.

**Object Understanding** Answer: [(0.12, 0.81)]

**Affordance Prediction** 

Answer: (0.61, 0.56)

**Coordinates Generation** 

### **Spatial Relationship**

Answer: (0.61, 0.78)

**Spatial Compatibility** Answer: (0.35, 0.55)

# of the mug.

# **Vision-Language Model**



#### **Coordinates Understanding**

### **Object Understanding**



What object is at (0.12, 0.81)?

#### **Affordance Prediction**



Is (0.12, 0.81) navigable for a mobile robot?

#### Spatial Relationship Spatial Compatibility



Describe the relationship between objects at (0.3, 0.1) and (0.5, 0.5)

Will a collision occur after moving the object from (0.2, 0.3) to (0.3, 0.5)?

### **Coordinates Generation**

#### **Object Understanding**



Detect all the couches in the image.

# **Affordance Prediction**

Generate a navigable point for a mobile robot.

#### Spatial Relationship



Point out the object which is located to the right of the notebook.

## Spatial Compatibility



Generate a collision-free location for the notebook.