









# Graded Assignment: Graded Assignment: Describe Three MDPs

### You passed!

Congratulations! You earned 12 / 12 points. Review the feedback below and continue the course when you are ready.

# **❖** Al Grading

Your assignment has been graded by AI. View your scores below.

Instructions My submission Discussions

# **REL301**

Submitted on May 31, 2025

#### **PROMPT**

Create an MDP. Remember to describe the states, actions and rewards. Make sure your three MDPs are different from each other.

# **MDP 1: Warehouse Robot Navigation**

**Description:** A robot operates in a warehouse to pick and deliver packages to designated locations while avoiding obstacles.

# **States:**

- Current (x, y) position in the warehouse grid
- Whether it is carrying a package or not (Boolean)
- Battery level (High, Medium, Low)
- Distance to the next package or delivery point

## **Actions:**

- Move North, South, East, West
- Pick up package
- Drop off package
- Recharge battery

## **Rewards:**

- **+10** for successfully delivering a package
- -1 for each movement step (encourages efficiency)
- -100 if the robot hits an obstacle or wall