

TRUE FALSE

1. An android is a special case of a humanoid robot.

 

2. IR sensors are insensitive to ambient light levels.

 

3. With a single wheel encoder, one can directly measure wheel rotation as well as the direction of rotation.

 

4. In a mobile robot with DC motors, the main purpose of a gear box is generally to

- A. Increase the speed of rotation and the torque
- B. Decrease the speed of rotation and increase the torque
- C. Increase the speed of rotation and decrease the torque
- D. Decrease the speed of rotation and the torque

1. This is true. Androids are humanoid robots that also mimic detailed aspects of the biological counterpart, e.g. hair, skin etc.
2. This is false: IR sensors are, in fact, very sensitive to variations in the ambient light level.
3. This is false: In order to measure the direction of rotation, one needs a second encoder.
4. The correct answer is B. The gear box reduces the speed of rotation and increases the torque.