A2 Robotics Test

Your Name:

1. How does a robot differ from a machine?

2. List four scenarios when robotic systems would be preferred to human operators.

3. Why do many robots need input sensors?

4. List input sensors that could be used for robotic 'vision'.

5. What is meant by an autonomous robot?

6. What is meant by telepresence?

7. What ability would a robotic system including an artificial neural network have over and above one without?

8. What actuator provides 180 degree rotation movement controlled by altering the width of pulses?

9. Sketch the four bit 360 degree Gray code pattern that could be used for a shaft encoder.

10. Compare the properties of lead acid, lithium ion and nickel metal hydride batteries.