

Exercise 15 (Cumulative): "Robot RX 784"

NAME: _____

Revise the following passages for sentence structure, sentence fragments, comma splices, subject–verb and pronoun–antecedent agreement, pronoun errors, modifier errors, parallel structure, and sentence combining.

Although relatively high in initial cost (\$50,000), a company using the pivoting arm industrial robot RX 784 will earn increased profit. Based on the salaries of the three workers it replaces, the payback period averages 16 months. By relying on hydraulic systems for movement, the manufacturer recommends the seals at the three main joints—hand, arm, and main rotary—be inspected and then only replace them if necessary every 400,000 hours.

The robot is more reliable than human workers and the noise and heat of the workplace does not affect it. Operates in hazardous and harsh environments. The RX 784 is made of tempered steel alloy that operate in radiation and up to temperatures of 2,000° Fahrenheit.

The RX 784 arm, which can extend from 500 mm to 1,000 mm and has an overall arc of 270°, is attached to a solid base. Although the base is stationary, it can be adapted to work from a moving track. It can be programmed in four hours to perform a variety of repetitive functions.

After the robot is installed, the highest expense is for electricity they require to operate. This cost, however, is 50 percent less than the cost of heat and cooling required to keep workers comfortable in the same work area.