## sTEm-at-Work Puzzle #27 Monitoring devices in miniature surgery

Data from a test evaluation of a miniature implanted pump, pump DP-3ml, for insulin delivery was obtained by a biomedical technician. In its normal implanted operation mode in a diabetic, the pump provides a two to three day insulin supply (3 milliliters) per operation cycle. As would be expected, power consumption (energy use) is an important design parameter. For this design test procedure, the pump is expected to use a total of 0.70 Joules of energy upon completion of the test. The technician examines the data and determines if the pump meets the test design criteria.

