

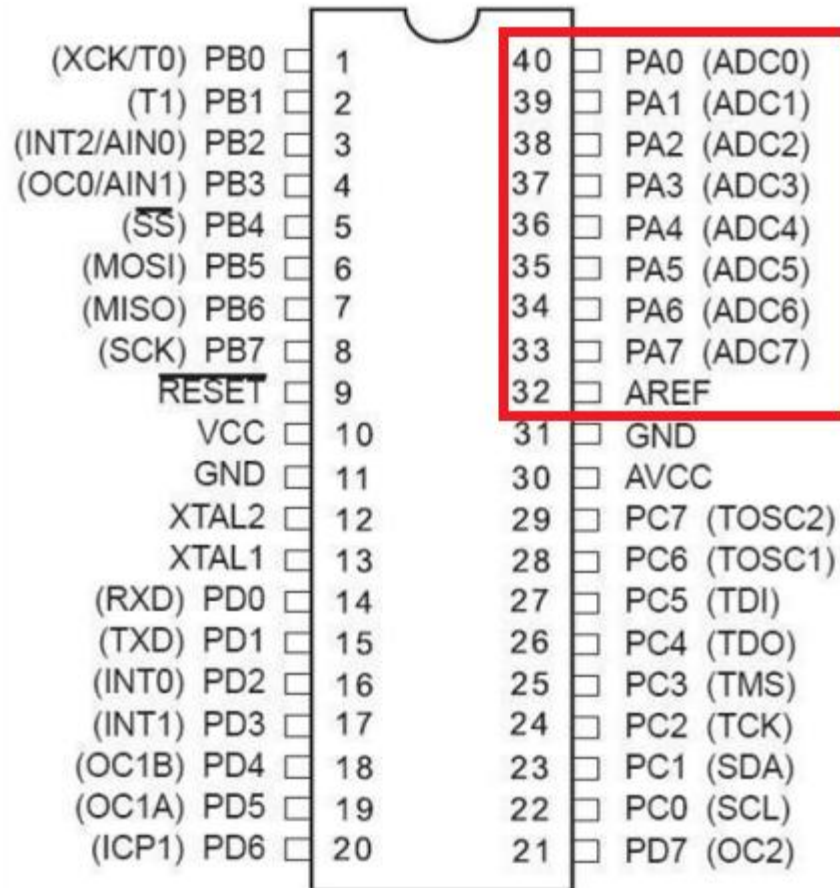
# ADC: Using Accelerometers and Gyroscopes

Rajat Arora

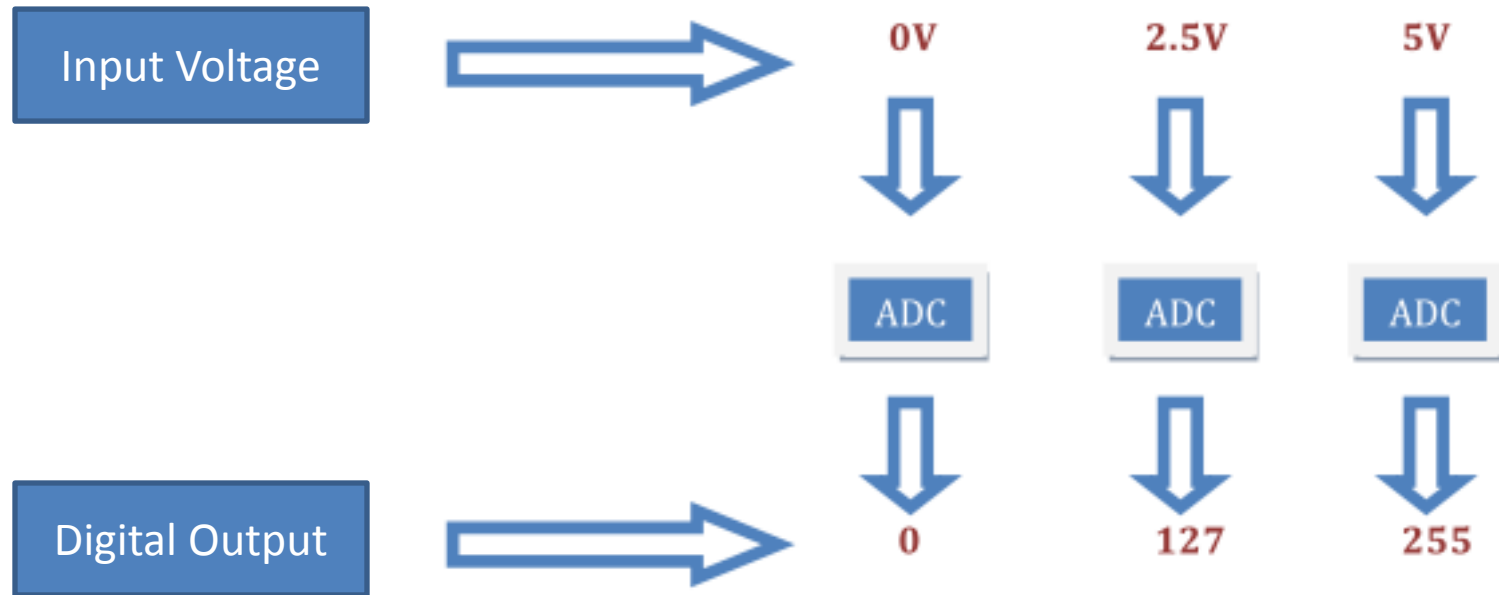
# ADC: Analog to Digital Converter

- What is analog ?
  - It is continuous range of voltage values (not just 0 or 5V)
- Why convert to digital ?
  - Because our microcontroller only understands digital.

# ADC in Atmega16



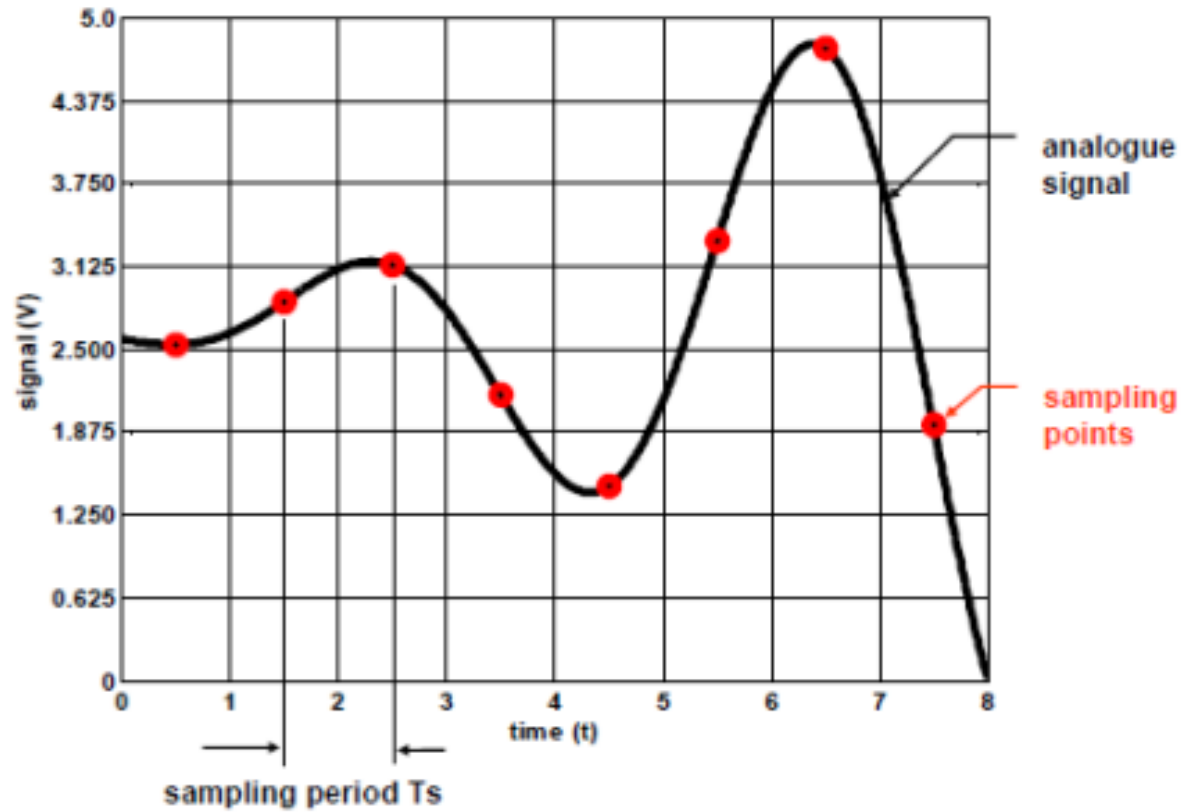
# Converting Analog Value to Digital



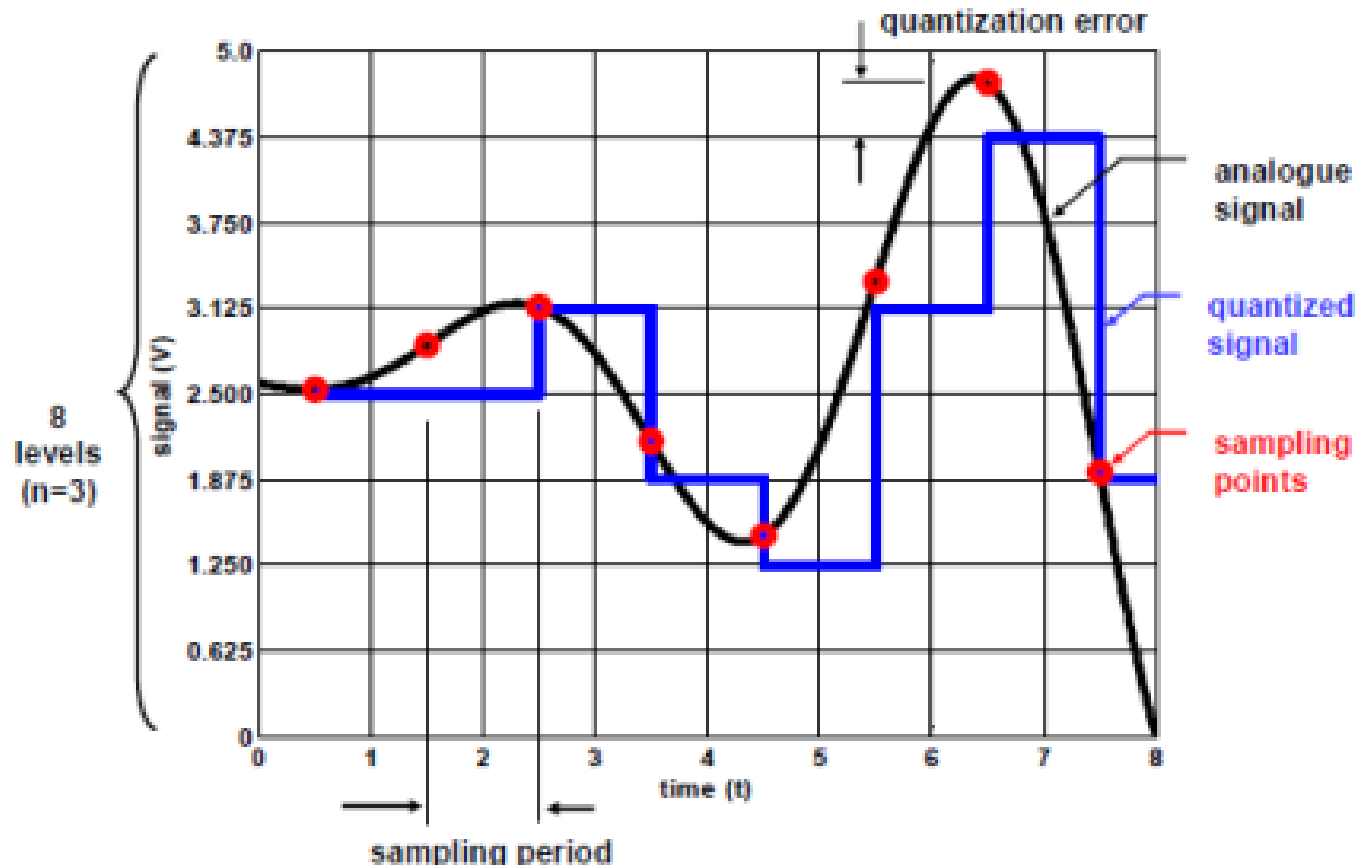
# ARef

- Reference voltage corresponding to  $1023 / 255$

# Sampling Rate



# Quantizing the Signal



# CVAVR Settings

