

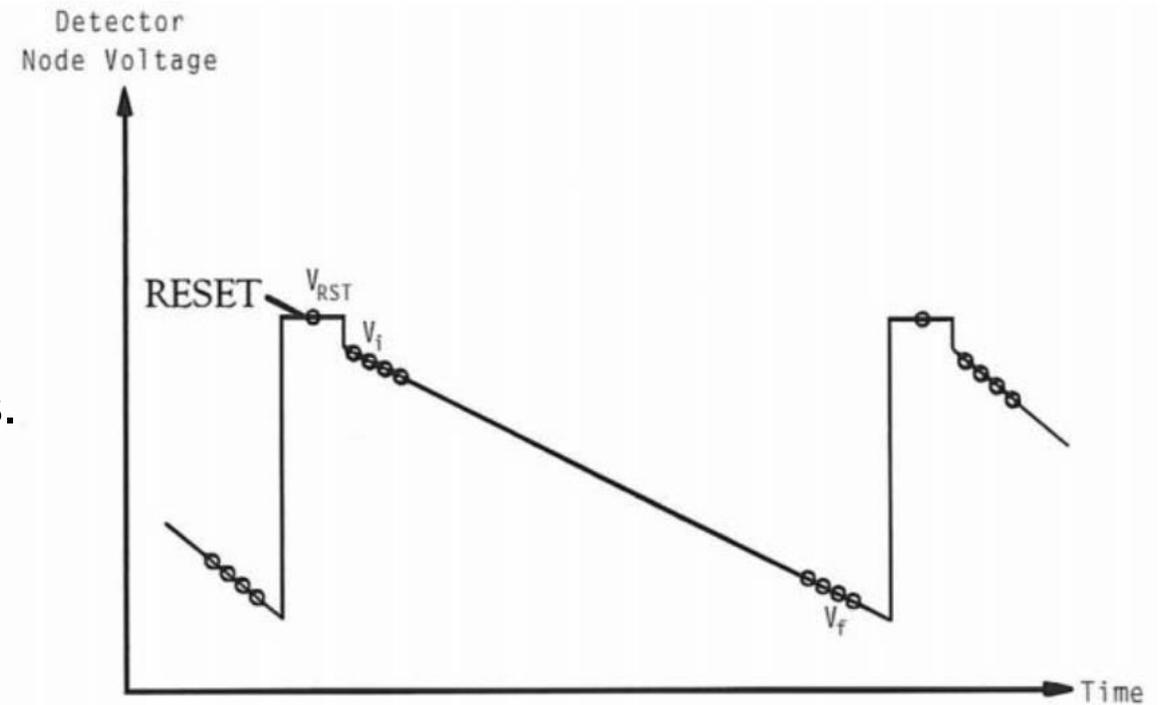
# section11\_Ex.6&12

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## 6. What is meant by non-destructive readout?

- If the reset pulse is not sent after the pixel is addressed and the signal digitized, then **the IR detector simply keeps on integrating.**
  - the charge is not altered when reading
  - Just sample the present value.
  - Multiple readouts are allowed, which leads to the decrease in readout noises.

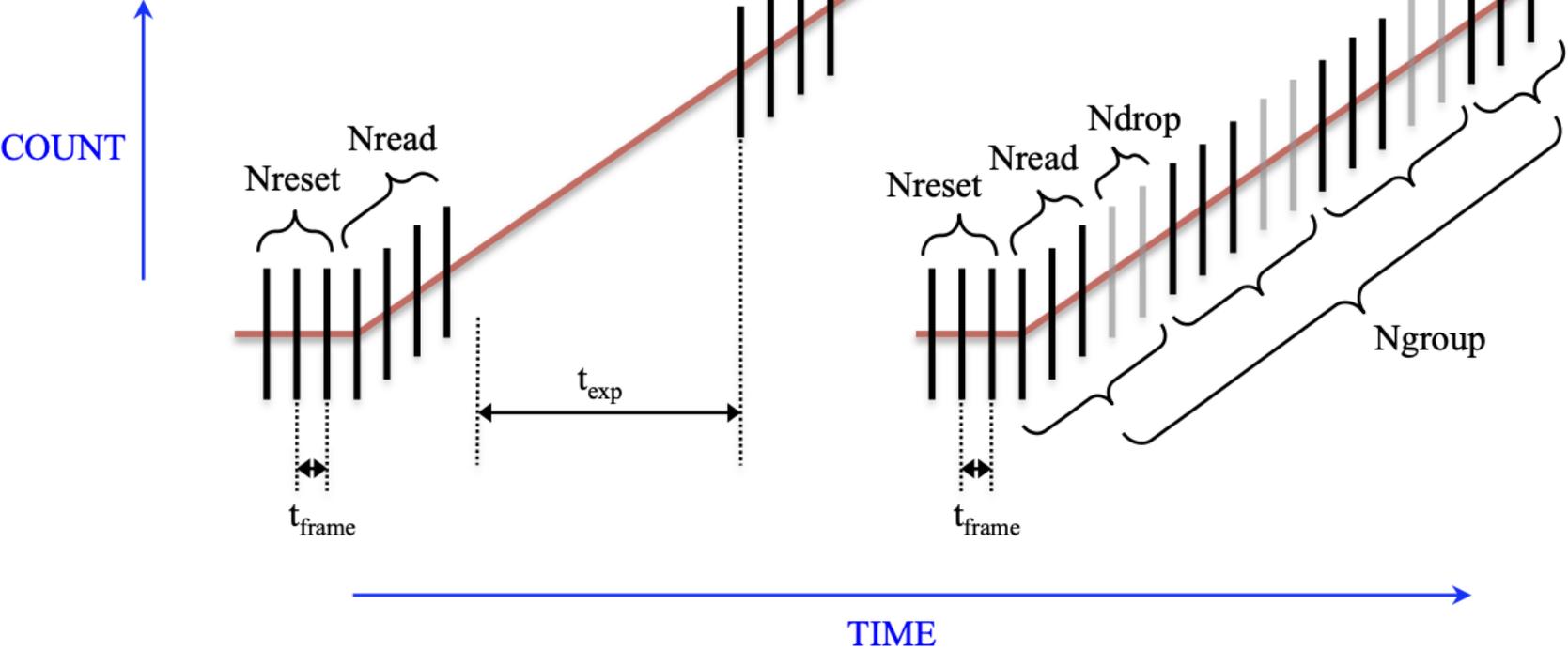


**Figure 11.12.** The schematic variation of the output voltage as a function of time for a typical pixel in an infrared array detector. Associated readout modes are described in the text.

# 12. Describe the concept of up-the-ramp sampling

## Fowler Sampling

## Ramp Sampling



➤ A best-fitting straight line can be applied to the data points to get the mean flux rate.

(todo 2014)