

# Circular Buffer

audio  $\rightarrow$   
Keep 5 most recent samples

8	67
6	75
7	83
8	30
3	09

buffer[4] = newVal

8
6
7
5
3
0
9

buffer[0] = newVal  
buffer[1] = newVal

buff size 4

0	second most recent
1	most recent
2	fourth
3	third

ind-to-insert

2	j = 0	ind 1
2	= 1	ind 0
2	= 2	ind 3
2	= 3	ind 2

ind-to-insert  
j

$$\boxed{\text{ind-to-insert} - 1 - j} \rightarrow \text{ind}$$

$$(\text{buff size} + \text{ind-to-insert} - 1 - j) \% \text{buff size}$$

$$\frac{\text{ind-to-insert}}{2}$$

$$\frac{j}{0}$$

$$\frac{(\quad)}{4 + 2 - 1 - 0 = 5}$$

$$\frac{(\quad) \% 4}{5 \% 4 = 1}$$

$$2$$

$$1$$

$$4 + 2 - 1 - 1 = 4$$

$$4 \% 4 = 0$$

2

2

$$4 + 2 - 1 - 2 = 3$$

$$3 \div 4 = 3$$

2

3

$$4 + 2 - 1 - 3 = 2$$

$$2 \div 4 = 2$$