consumer_read

1. Writer finishes inserting 1 character into the FIFO of capacity 2. FIFO full.
2. Writer delays 1ns before sending write_event.
3. Writer finishes inserting 1 more character into the FIFO of capacity 2. FIFO full.
4. Reader starts reading from the FIFO which contains 2 characters.
5. Reader reads 1 character from the FIFO. FIFO now has 1 character left. Reader continues to read the remaining character.
6. Reader delays sending the read_event to the writer.
7. Reader reads 1 character from the FIFO. FIFO now has 1 character left. Reader continues to read the remaining character.
8. Reader delays sending the read_event to the writer.
9. Reader notifies the writer by sending read_event.
10. FIFO empty. Reader has read 2 characters.
11. Writer writes 1 more character. FIFO has 1 empty space.
12. Writer delays 1ns before sending write_event.
13. Writer notifies the reader.

consumer_write

0. Writer finishes inserting 1 character into the FIFO.
1. Writer finishes inserting 1 more character into the FIFO.
2. Writer delays 1ns before sending write_event.