

EXTENDS *Integers, Sequences*

$Put(s) \triangleq Append(s, \text{"widget"})$

$Get(s) \triangleq Tail(s)$

$a \oplus b \triangleq (a + b) \% 2$

(\*\*\*\*\*)

--algorithm *Handshake*{

**variable**  $p = 0, \ c = 0, \ box = \langle \rangle;$

**process** (  $Producer = 0$  )

        {  $p1$ : **while** ( TRUE )

            { **await**  $p = c;$

$box := Put(box);$

$p := p \oplus 1$

            }

        }

**process** (  $Consumer = 1$  )

        {  $c1$ : **while** ( TRUE )

            { **await**  $p \neq c;$

$box := Get(box);$

$c := c \oplus 1$

            }

        }

}

(\*\*\*\*\*)