

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** $p \neq c;$

$box := Get(box);$

$c := c \oplus 1$

 }

 }

 }

(*****)