
MODULE *Actuator*

```

EXTENDS Node, Sequences, Natural
VARIABLE Actuator
ActuatorID  $\triangleq$  3
ActuatorNode  $\triangleq$  [
  AcNode  $\mapsto$  Node(ActuatorID),
  AcReceivedDData  $\mapsto$  BOOLEAN ]
NodeIDs  $\triangleq$  1 .. 6
Nodes  $\triangleq$  [n  $\in$  NodeIDs  $\mapsto$  Node(n)]

ActuatorModeInvariant  $\triangleq$ 
   $\wedge \exists n \in \text{DOMAIN } \textit{Nodes} :$ 
    Nodes[n].NodeType =
      Gateway  $\wedge$  Nodes[n].NCon = "Connected"

   $\wedge$  IF Actuator.AcReceivedDData = FALSE THEN
    Actuator.AcNode.NMode = "Inactive"
  ELSE
    Actuator.AcNode.NMode = "Active"

```
