

## Test Scripts:

### 1. Receiver

Model: MyReceiver

Model file:ReceiverTest.ma

Event file:ReceiverTest.ev

Description: When there is an input of value of "1" at port "In1", the receiver will change its state from ready to receiving, and generate an output "1" at the port "Out". When there is an input of value of 0 at port "In2", the receiver will change its state from receiving to disable. Then any input at port "In1" will be ignored. After the input of value of "1" at port "In2", the receiver will change its state from disable to ready and wait for the input at port "In1" again.

### 2. Timer:

Model: MyTimer

Model file:TimerTest.ma

Event file:TimerTest.ev

Description: When there is an input of value of "1" at port "In", the Timer will change its state from waiting to computing, and generate an output "0" at the port "Out1" to disable the Receiver, and outputs "0" at "Out2" and a time eclipsed at "Out3" to stop transmit and display distance. After two seconds, Timer changes its state from computing to waiting, and generate an output "1" at the port "Out1" to enable the Receiver, and outputs "1" at "Out2" and "0" at "Out3" to transmit and disable the Processor.

### 3. Transmitter

Model: MyTransmitter

Model file:MyTransmitter.ma

Event file:MyTransmitter.ev

Description: When there is an input of value of "1" at port "In", the Transmitter will change its state from passive to active, and generate an output "1" at the port "Out" to transmit the ultrasound. When there is an input of value of "0" at port "In", the Transmitter will change its state from active to passive, and generate an output "0" at the port "Out" to stop transmitting.

### 4. Processor

Model: MyProcessor

Model file:MyProcessor.ma

Event file:MyProcessor.ev

Description: When there is an input of value that is not equal to "0" at port "In", the Processor will change its state from passive to active, and generate an output of the value at the port "Out" to display the distance. When there is an input of value of "0" at port "In", the Transmitter will change its state from active to passive, and generate an output "0" at the port "Out".

### 5. System

Model: System

Model file:SystemTest.ma

Event file: SystemTest.ev

Description: The system receives "1" at port "In". Then it outputs "0" at "Out1" and "1" at "Out2". After two seconds, it outputs "1" at "Out1" and "0" at "Out2" and waits for next "1" at port "In".