

```
timescale 1ns / 1ps
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
// Company:
// Engineer:
//
// Create Date: 06/01/2024 04:21:44 PM
// Design Name:
// Module Name: iceStateTest
// Project Name:
// Target Devices:
// Tool Versions:
// Description:
//
// Dependencies:
//
// Revision:
// Revision 0.01 - File Created
// Additional Comments:
//
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////

module iceStateTest();
    reg clkkin, TZ, T2, T4, underwater, slug, activate;
    wire startTimer, timerStartZ, frzn, fall, fade, spawn, init;

    iceState state (.clk(clkkin), .TZ(TZ), .T2(T2), .T4(T4), .underwater(underwater),
.slug(slug), .activate(activate));

parameter PERIOD = 10;
parameter real DUTY_CYCLE = 0.5;
parameter OFFSET = 2;

    initial
    begin
        clkkin = 1'b0;
        #OFFSET
        clkkin = 1'b1;
    forever
        begin
            #(PERIOD-(PERIOD*DUTY_CYCLE)) clkkin = ~clkkin;
        end
    end

    initial
```

```
begin
  TZ = 0;
  T2 = 0;
  T4 = 0;
  underwater = 0;
  slug = 0;
  activate = 0;
  #1000;
  activate = 1;
  #1000;
  TZ = 1;
  #1000;
  TZ = 0;
  #1000;
  T4 = 1;
  #1000;
end
endmodule
```