// Student Name: Daniel Li

// Student Number: 50995133

// Function: Tests the Project 1 Blender

module P1Blender\_tb;

logic [1:0] out\_tb;

logic clk\_tb, reset\_tb;

logic [3:0] BlendMode;

P1Blender Testblend(

.y (out\_tb),

.clk (clk\_tb),

.reset (reset\_tb),

.Mode (BlendMode)

);

// Initialize the testbench

initial begin

clk\_tb = 0;

reset\_tb = 1;

BlendMode = 0;

end

initial begin

#15 reset\_tb = 0;

end

always

begin

#10 clk\_tb = ~clk\_tb; // The clock cycle being an order of magnitude faster than the mode change allows for it to cycle through every state at least twice.

end

always

begin

#400 BlendMode = BlendMode +1; // The counting up of the mode allows for the cycling through the modes, with modes between 0111 and 1101 having no output.

end

endmodule