module paddle\_control(clk, rxdata, current\_pixel\_x, new\_pixel\_x);

input clk;

input [7:0] rxdata;

input [9:0] current\_pixel\_x;

output reg [9:0] new\_pixel\_x = 0;

always @(posedge clk)

begin

// if (current\_pixel\_x <= 50 && rxdata == 108) // 108 == l / left

// begin

// new\_pixel\_x <= current\_pixel\_x;

// end

// if (current\_pixel\_x >= 590 && rxdata == 114) // 114 == r / right

// begin

// new\_pixel\_x <= current\_pixel\_x;

// end

// else

// begin

if (rxdata == 108)

begin

new\_pixel\_x <= current\_pixel\_x <= 50 ? current\_pixel\_x : current\_pixel\_x - 50;

// new\_pixel\_x <= current\_pixel\_x - 50;

end

// else

// begin

if (rxdata == 114)

begin

new\_pixel\_x <= current\_pixel\_x >= 590 ? current\_pixel\_x : current\_pixel\_x + 50;

// new\_pixel\_x <= current\_pixel\_x + 50;

end

if (rxdata == 100)

begin

new\_pixel\_x <= current\_pixel\_x;

end

end

endmodule