

```
timescale 1ns / 1ps
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
// Company:
// Engineer:
//
// Create Date: 05/25/2022 07:25:08 PM
// Design Name:
// Module Name: colision
// Project Name:
// Target Devices:
// Tool Versions:
// Description:
//
// Dependencies:
//
// Revision:
// Revision 0.01 - File Created
// Additional Comments:
//
////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////////
```

```
module col(
    input [15:0] frogpos,
    input [15:0] x1,
    input [15:0] x2,
    input [15:0] x3,
    input [10:0] y1,
    input [10:0] y2,
    input [10:0] y3,

    output colision

);
    wire colision1, colision2, colision3;

    assign colision1 = (x1 - 16'd40 <= 16'd136) & (x1 >= 16'd120) & (frogpos +
16'd16 >= y1) & (frogpos <= y1+ 16'd96);

    assign colision2 = (x2 - 16'd40 <= 16'd136) & (x2 >= 16'd120) & (frogpos +
16'd16 >= y2) & (frogpos <= y2+ 16'd96);

    assign colision3 = (x3 - 16'd40 <= 16'd136) & (x3 >= 16'd120) & (frogpos +
16'd16 >= y3) & (frogpos <= y3+ 16'd96);

    assign colision = colision1 | colision2 | colision3;
```

endmodule