//Set the window size, window position, display mode

Display function {

if(start game and game not over)

display game screen;

else if(instruction to be displayed)

display instruction screen;

else if(game Over)

display Game Over Screen;

else if(start Screen){

display start Screen;

if(game Quit || start Game || options Game || instructions Game){

//change the start screen;

if(start Game button press){

Start Screen = false;

} else if(game Quit button press)

exit;

} else if(instructions Game button press) {

display instruction screen;

}

}

}

game screen display function {

Display background color;

Display health bar;

if( life){

Create spaceship;

} else {

Display game over screen;

}

Stone generator function;

}

Create spaceship function {

if (spaceship is hit by asteroid and spaceship has some life)

Life--;

Draw spaceship doom;

Draw alien inside spaceship;

Draw Steering Wheel;

Draw Spaceship Body; //add the lighting effect

Draw Spaceship lazer;

if (mouse button pressed)

Draw lazer beam;

}

Draw alien function {

Draw Alien Body;

Draw Alien Collar;

Draw Alien Face;

Draw Alien Beak;

Draw Alien Eyes;

//for all these draw the polygon and fill with color, then draw border

//if needed add effect

}

Stone generator function {

if( the last stone hits the end of screen )

Level++; // stone will go to the next level

if(stone hit by lazer ) {

Score++;

Stone\_alive=0;

}

if( Stone\_alive ) // stone not hit by lazer

Draw stone;

}

Instruction screen display function {

Set the background color;

Display the instructions;

Display a back button;

}

Back button function {

if(mouse is hovered over){

change text color to blue when mouse is hovered over;

Display start screen;

}

else{

set the text color to black;

Display the text ‘back’ ;

}

}

game over display function {

display background color;

draw the border;

draw the polygon to display game over and fill the polygon with any color;

draw the polygon to display Restart and fill the polygon with any color;

draw the polygon to display Quit and fill the polygon with any color;

display ‘game over’ text in game over polygon;

display the high score ;

display the score; //score and high score are stored in a file

display ‘restart’ text within restart polygon;

if( mouse pressed on restart button)

initialize ;

display ‘quit’ text within quit polygon;

if( mouse pressed on quit button)

exit;

}

Key press function {

if( key a is pressed)

decrease x coordinate;

if( key d is pressed)

increase x coordinate;

if( key w is pressed)

increase y coordinate;

if( key s is pressed)

decrease y coordinate;

if( key a or d or w or s is pressed)

recalculate laser angle;

display function ;

//coordinates increased, decreased by 20 units

}

Passive motion function {

//used when mouse moves within window

Calculate x, y coordinate;

recalculate laser angle;

}

Start screen display function {

Display background color;

Draw the border;

Draw polygon to display ‘Start Game’ and fill the polygon with any color;

Draw polygon to display ‘Instructions’ and fill the polygon with any color;

Draw polygon to display ‘Quit’ and fill the polygon with any color;

Display ‘Start game’ inside start game polygon;

if( mouse is pressed on start game button)

display game screen;

Display ‘Instructions’ inside Instruction polygon;

if( mouse is pressed on Instructions button)

Display Instructions screen();

Display ‘Quit’ inside start game polygon;

if( mouse is pressed on Quit button)

exit ;

}