TRON ++
The Game

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Problem Statement

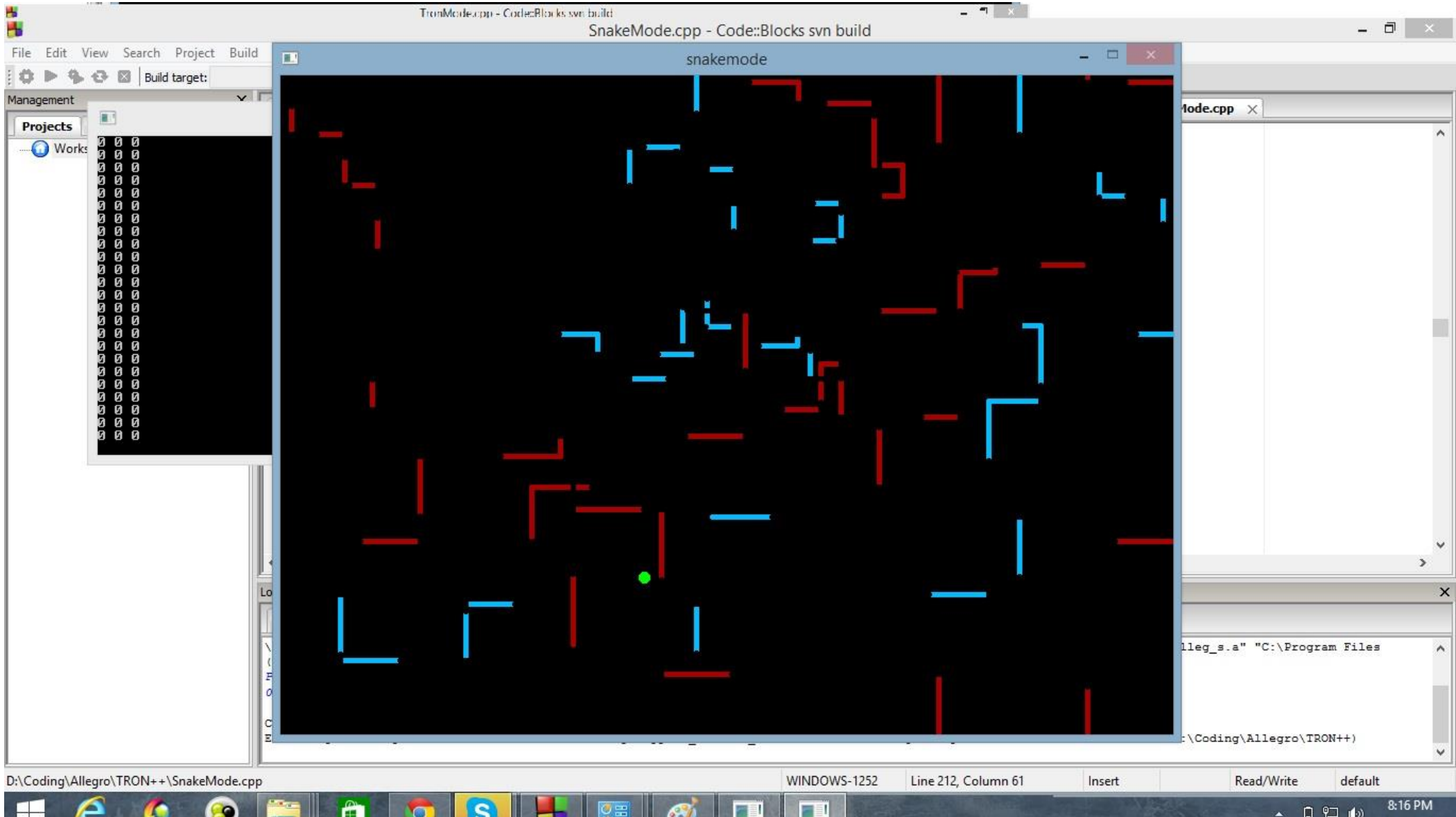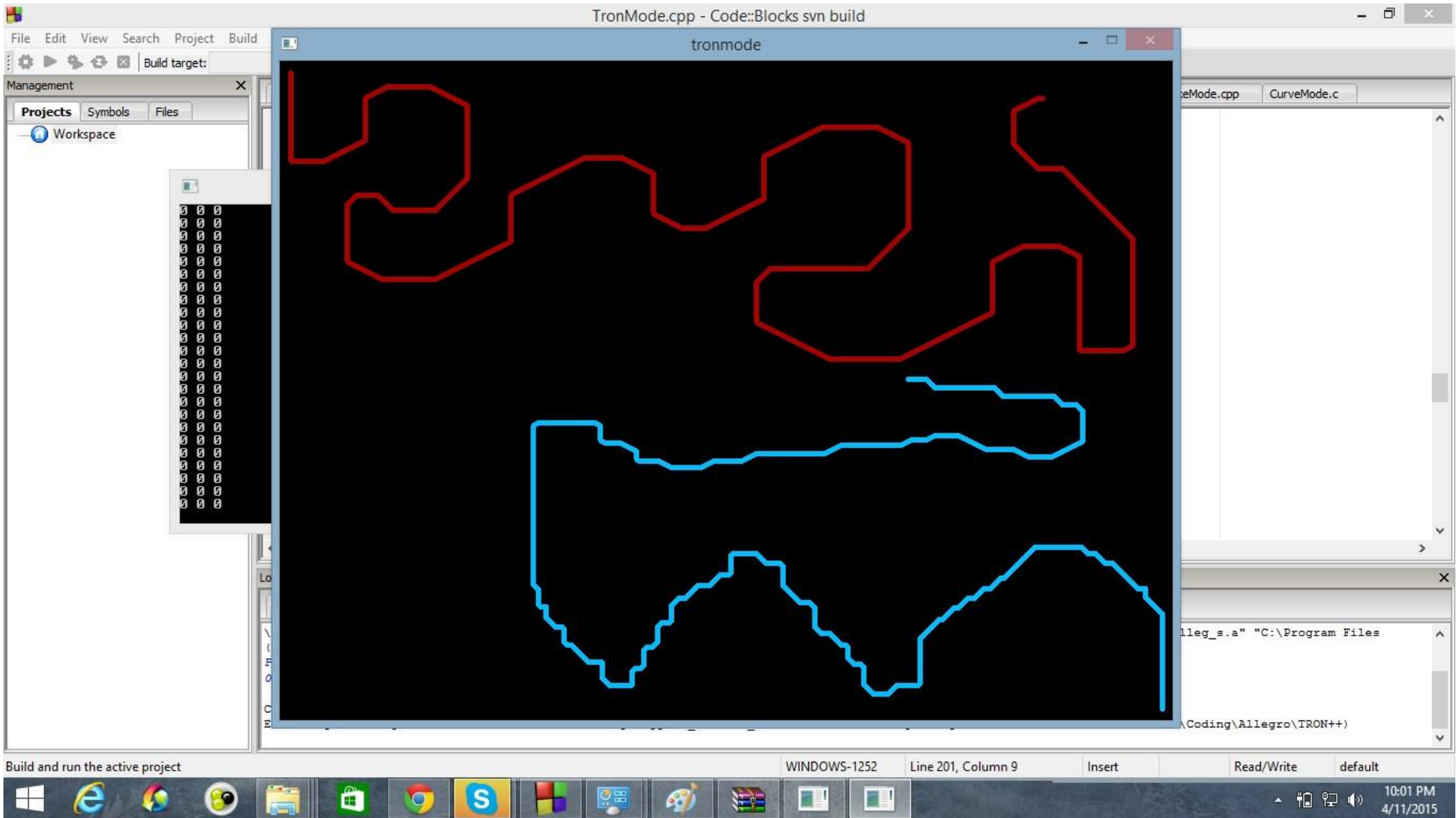- The game is a modification of the classic snake game. The basic goal is "Survival of the fittest".
- There are three mods for the game-Tron Mode, Snake Mode and Curve Mode.
- In the Tron Mode, when the player moves, a trail is left behind. If a player collides with his/opponent's trail, he loses the round. Losing two rounds leads to losing the game. Head on collision leads to a draw
- In Snake Mode, Snake sheds it's skin when it takes a turn. Colliding with self does not affect you. Colliding with opponent or it's skin leads to losing the round.
- Curve Mode is similar, but curved movements are also allowed.

Project Screenshots

Ironmode

Player 1 wins the round

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This round is a draw

SnakeMode.cpp - Code::Blocks svn build

snakemode

File Edit View Search Project Build

Build target:

Management

Projects

Works

Mode.cpp

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:\Coding\Allegro\TRON++)

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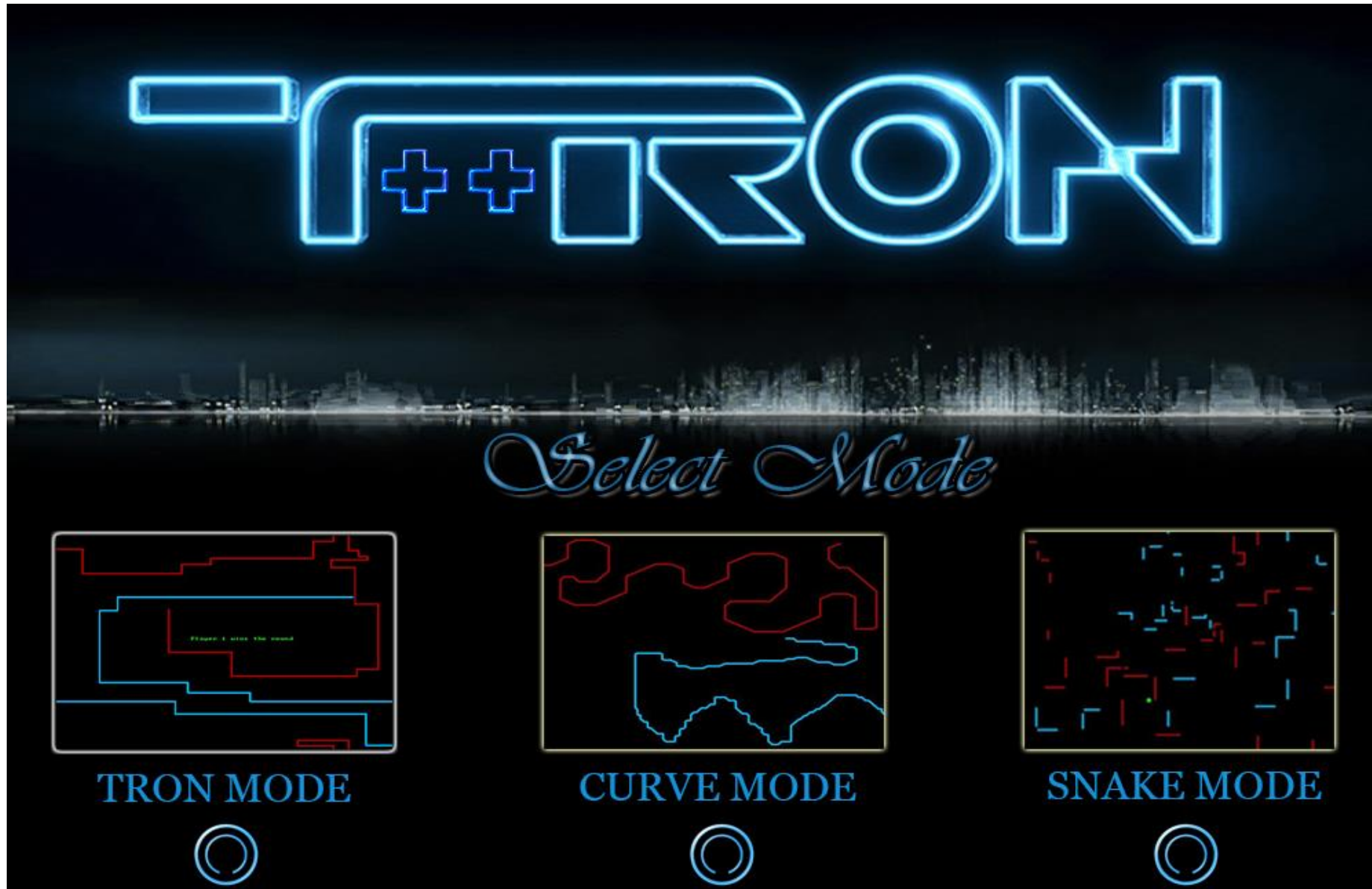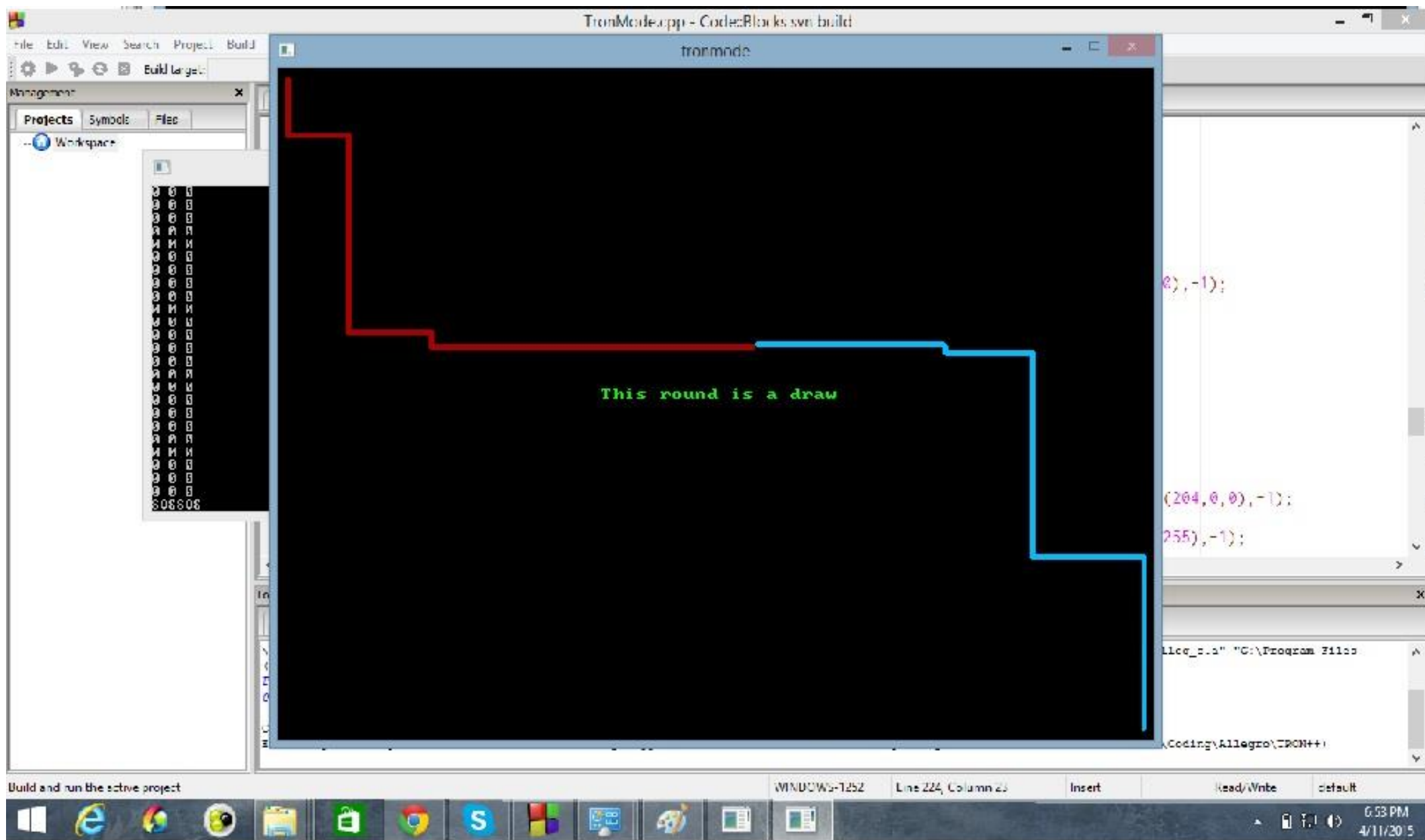
Challenges Faced

- Making the collision function. We used Pixel Perfect algorithm were pixels were scanned to obtain their RGB value. But somehow we was getting weird RGB values. This literally made the code reach a standstill stage. But finally we figured it out.

- Taking inputs simultaneously. Initially we were stuck in a while loop.

- Learning allegro was yet another challenge. All of us were completely new to game programming.

Innovations

- In Snake mode, a creative idea has been implemented. Whenever the snake takes a turn, it "sheds its skin". And this skin is poisonous to the opponent but not for the player himself.

- In Tron mode and Snake mode, power-ups have been implemented. These power-ups have different effects in each mode.

  In Tron mode, eating a power-up increases the thickness of the opponent, making it more difficult for him.

  In Snake mode, eating a power-up increases your length, thus letting you make bigger "shed skins", making it difficult for the opponent.

Future Work

- Including Artificial Intelligence (AI) in the game, so as to drastically improve the gameplay experience and overall quality of the game.
- Including 2+ player gameplay, thus improving the entertainment factor due to the increased difficulty.
- Building upon the present work to create more modes for the game.
- Various power ups for changing speed/thickness etc for making the game more challenging.
- Improving the graphic design and model structure.
- Including sounds and ambience.

THANK YOU!