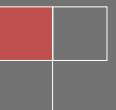# Rubber Man

Move me as you wish

Computer Graphics IT 441

Submitted by:

Ranveer Raghuwanshi

(200801077)

## Abstract of the Project

The project presents a man who can rotate his hand and leg in various ways. All the dimensions of the person are pre-defined and is done so as to give it a perfect look of a man. By dimension, I mean the different angles, different heights and width of the various portions of the human body. Different colors are given to different parts of the body so that user can differentiate the body movement of various parts. The various key controls to move different parts of the body are mentioned in the table below:

| Body part | Key |
|---|---|
| Torso | d |
| Head 1 | e |
| Head 2 | r |
| Left Upper Arm | s |
| Left Lower Arm | a |
| Right Upper Arm | f |
| Right Lower Arm | g |
| Left Upper Leg | x |
| Left Lower Leg | z |
| Right Upper Leg | c |
| Right Lower Leg | v |

*The movement of the different body parts mentioned above will occur in opposite direction if the "capitals" of the corresponding keys are pressed.

The movement of all the mentioned parts will take place through 360 degrees. A sound file (.wav) is also added to the code so that background music will start whenever any of the control key is being pressed. The music will resume again whenever another key is pressed. The head of the person can also be moved.
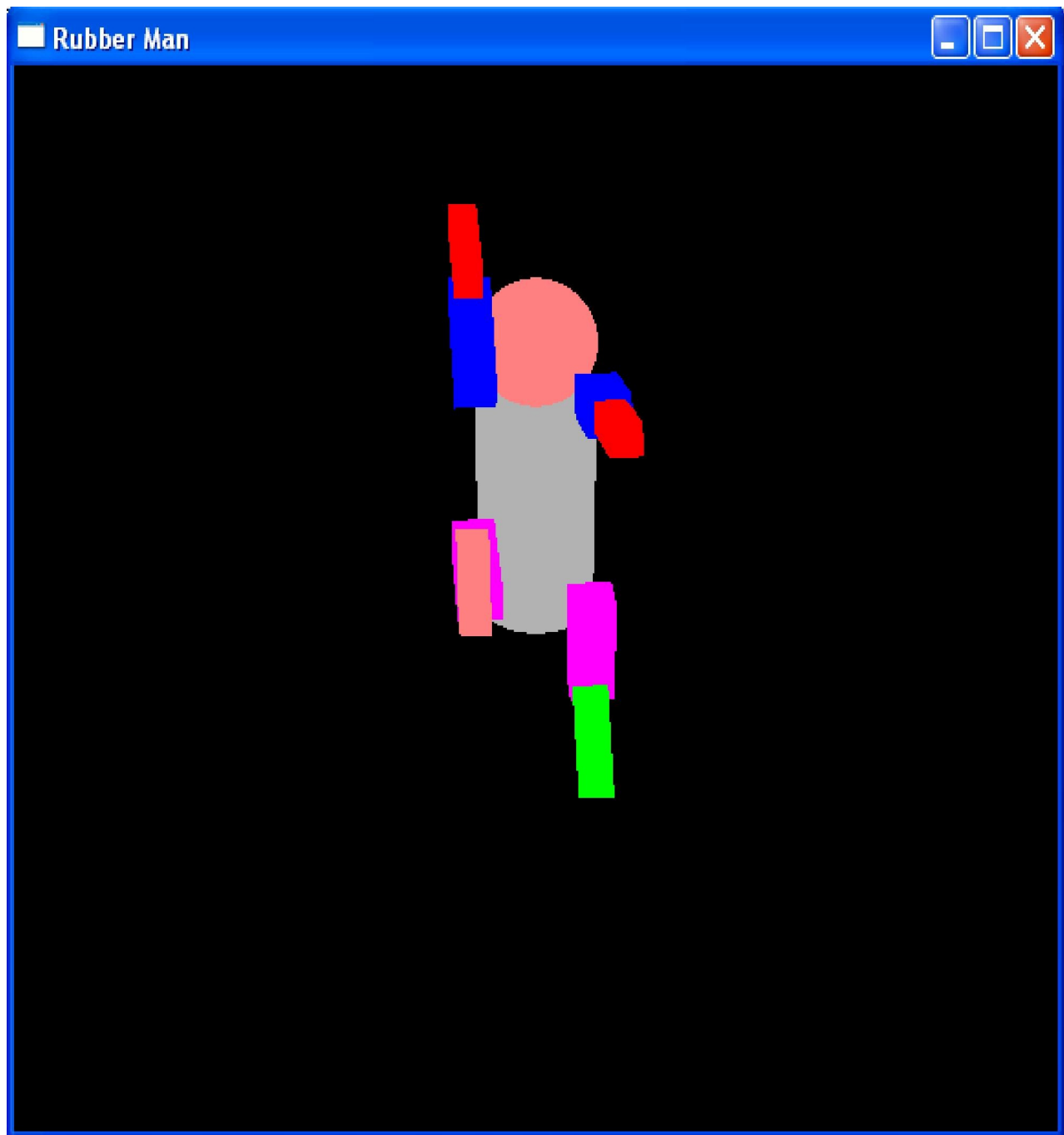
## Design and Implementation

The program is defined in the scripting language Python (2.6) and API used is OpenGL. We also used pygame to import the sound file. The details about the syntax of all the functions used in the program are referenced from the "PyOpenGL Documentation" manual.

# Screenshot of the Model



Initial position of the man

Rubber Man



The model after giving some rotation to both the hands and the legs.

## Optional Features

Some of the additional features that I could have implemented are:

1) Movement of the man in different directions
2) Restricting the movements of different parts of the body to some particular angle and direction
3) Designing the look of the man in a better way
4) And providing a good background