Project 1:
Internship at HopMotion Studios

GOKUL C J

ROLL NO: 156340003

M.DES, ANIMATION

IDC, IIT BOMBAY

Goals of the Project

*   Understanding business processes within the animation industry

*   Hands on experience in Industry standard software

*   Work on ongoing shows

*   Understanding the animation workflow.

Contents

- HopMotion Studios

- Business Processes

- Animation workflow
  ◦ Layouts, backgrounds
  ◦ Storyboarding

- Production Log

- Toon Boom Harmony
  ◦ Rigging, Helpers
  ◦ Shadows, Animation

- Props and Shots

HopMotion Studios

Full service digital 2d Animation Studio located in Andheri East, Mumbai

Key Members:
- Anish Patel – Founder, CEO
- Carmen – Co Founder, Senior Writer
- Neil Lukkani – Founding member, COO

Major series :
- Chhoti Anandi
- Modern Activity
- Kung Fu Singh
- Ninja Patel
- International series.

A still from Chhoti Anandi

Key Learning Points

- Business Processes
- Animation Workflow
- Background, Layout art
- Storyboarding
- Production Log
- Toon Boom Harmony - Stage
- Rigging
- Shadow
- Animation
- Props and Shots

Logo of HopMotion

Business Process

❖ Know the team. Plan the schedule accordingly.

❖ Less man power, more buffer time

❖ Proper work allocation based on skills

❖ Freelancers used whenever necessary

❖ Proper planning and timing of shots and scenes

❖ Client interaction depends on nature of project

❖ Modification by the client till the Animatics Stage

Animation Workflow
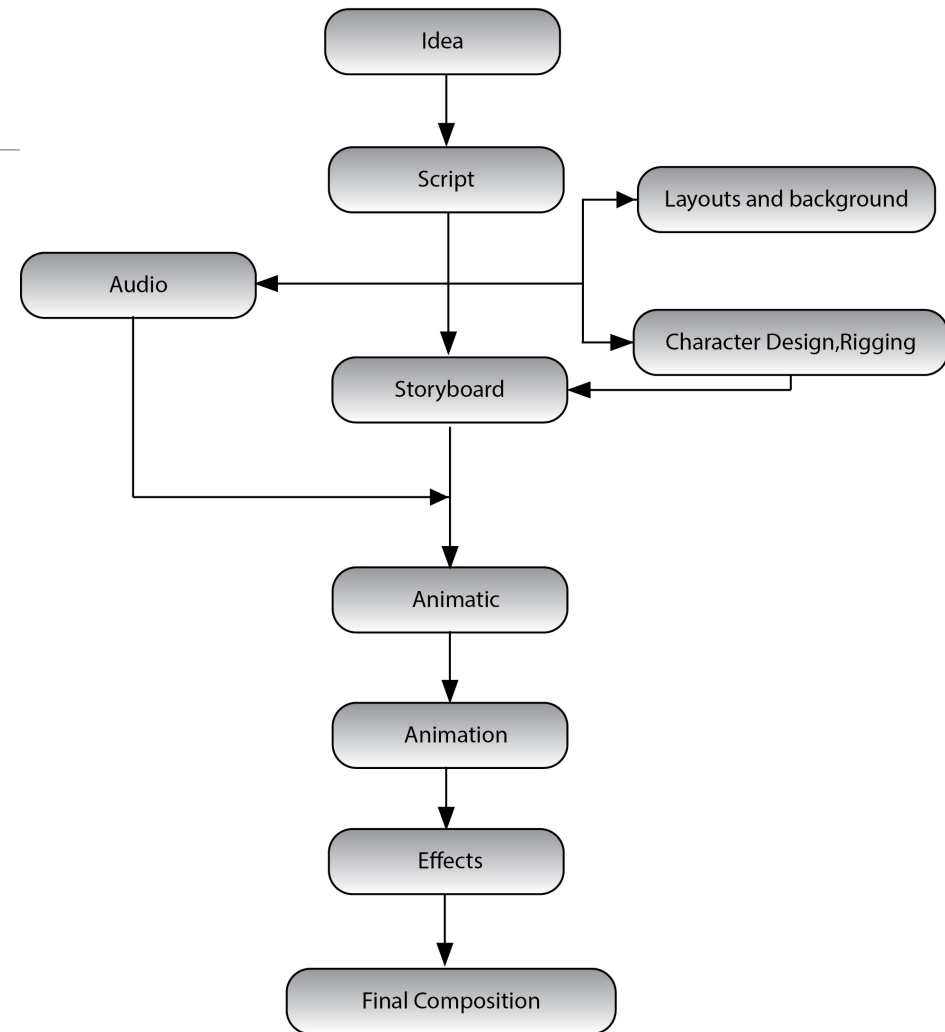
Layouts, Backgrounds

- Layout not done separately, but as backgrounds in majority of projects.

- In international projects, client decides the style and colour scheme.

- In Studio projects, decision of styles for the backgrounds are decided and then communicated with the client for approval.

- Tools used: Adobe Photoshop, Toon Boom Storyboard Pro

- 3d rendered images with post processing are used in backgrounds as well.

- Background steps:

Napkin Sketch → Rough Sketch → Key location → Key Background → Scene-wise backgrounds

Storyboarding

Storyboard sequences divided into:
- 60 – 65% Mid-shots
- 5 – 10% Close-ups
- 5% Extreme angle shots

Tough shots are used in minimal ways for in-house projects so as to reduce effective animation time.

Toon Boom Storyboard Pro used.

Production Log

Logging of work done per shot and scene.

Effective in analysing the work done and work remaining.

Has details of shot, scene, duration, animator and number of frames.

Tabulation made easier.

Sl.No	Shot #	Duration	Animator	Number of frames	Comments

Sample for production Log in the studio.

Toon Boom Harmony

- Main Animation tool used in the studio.

- Creative and efficient tool for animation.

- Artist friendly drawing Trained in the drawing, rigging and animation sections of the software.

- Harmony application to perform character design, rigging and animation: Harmony Stage.

- In-built filters are very useful in character rigging and animation.

Toon Boom Stage UI
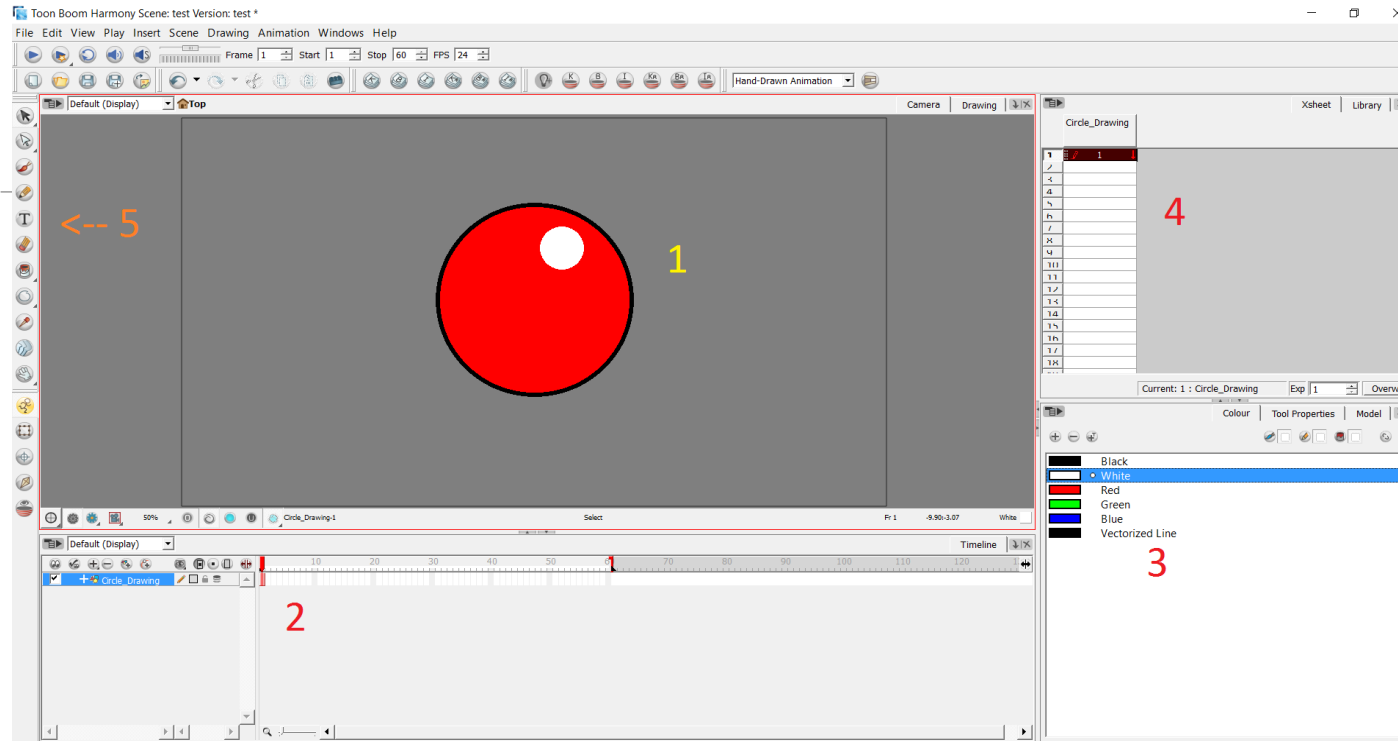
1 : Canvas on which the drawing is made

2 : Timeline and layering of the composition

3 : Colour palette used in the drawing.

4 : Time ladder

5 : Basic tool bar with the drawing and rigging tools.

Harmony Stage : Main Tools
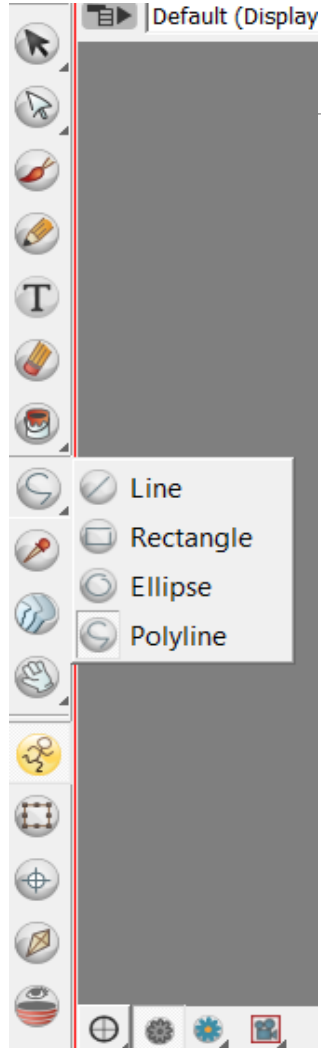
Main tools include:

Selection Tools

Brush, Pencil – Freehand

Text Editor

Eraser

Fill Paint (Unpaint, Close gap, Paint Unpainted etc)

Morphing tool

Curve Tools – Line, Rectangle, Ellipse, Polyline(PEN tool)

Animate and Transform

Pivot

CHARACTER RIGGING

- Character Rigging for puppet 2d animations done.

- All the characters and props are rigged.

- Rig details depends on the level of complexity required by the project.

- International projects have much detailed characters, so their rigs tend to be heavier.

- Drawing Layer has images and corresponding Peg layers have rig details.

- Hierarchy of components is created which results in easy animation of parts.

  Eg: Fingers → Hand → Lower Arm → Upper Arm → Shoulder

  Software filters used while rigging: Auto patch, Cutter

- Peg layers are parented to the peg in the order of hierarchy to achieve bone like connections.
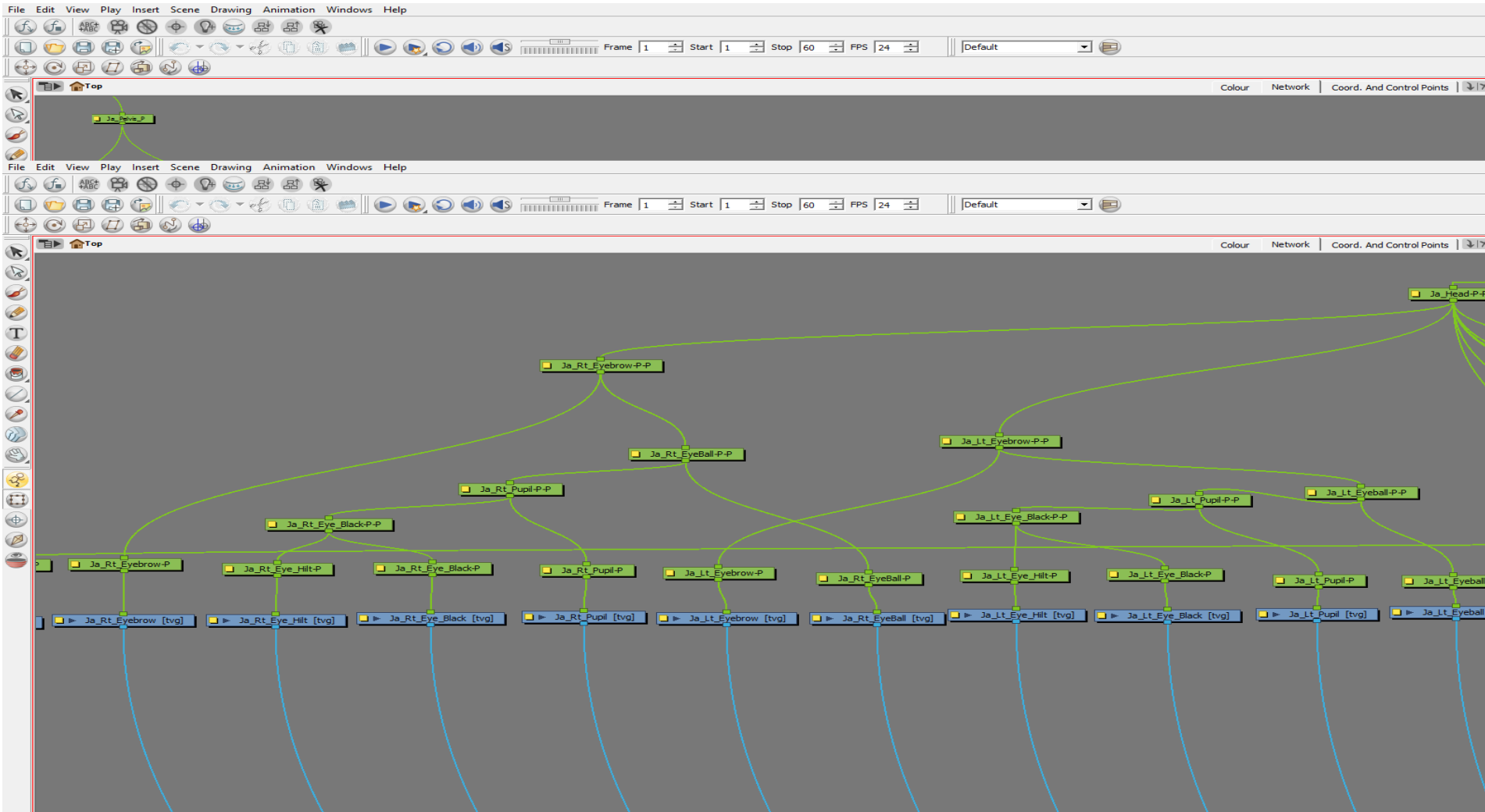
Rigged Character
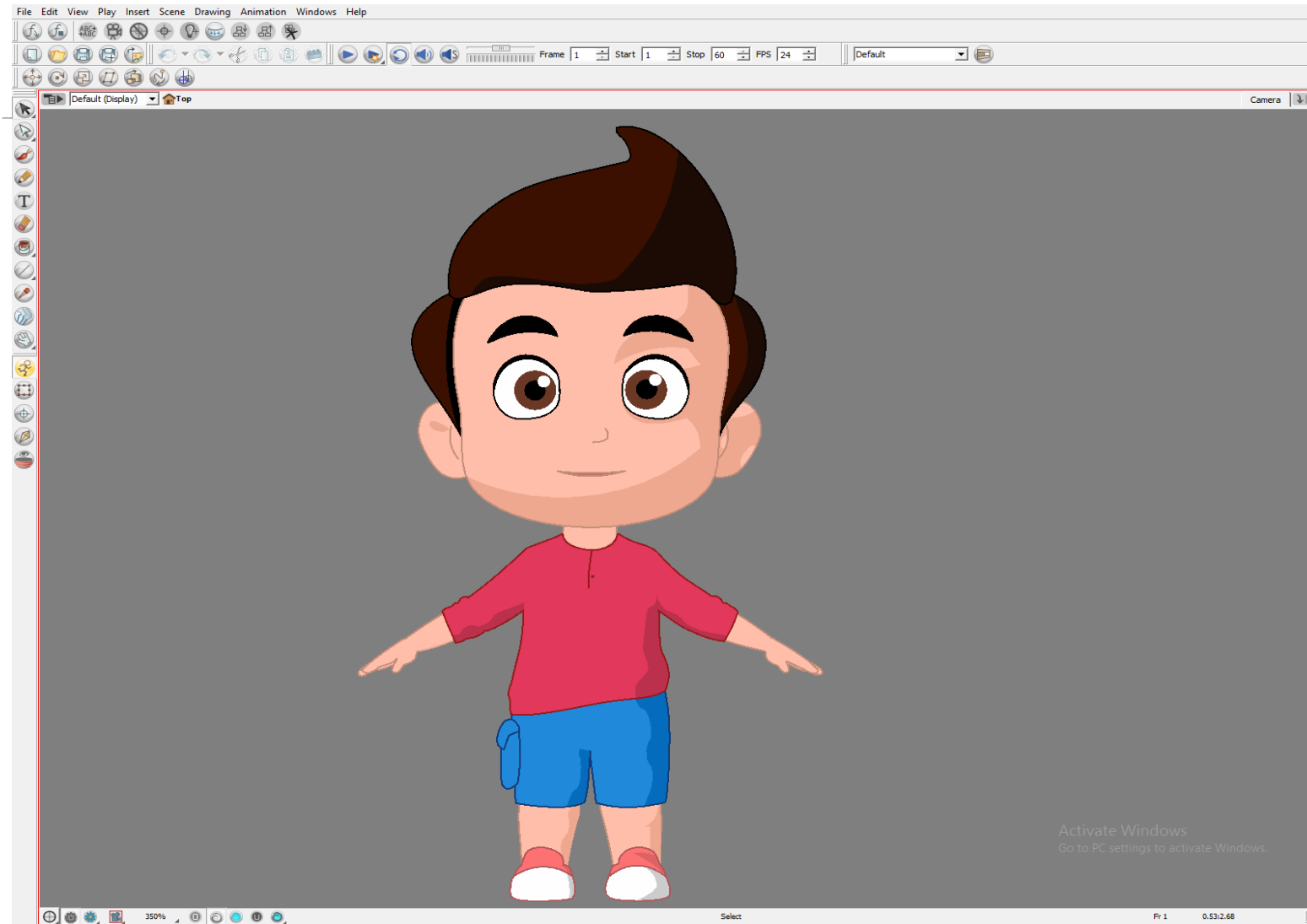
Character SAVIO

from the web-series Modern Activity, rigged with Harmony.
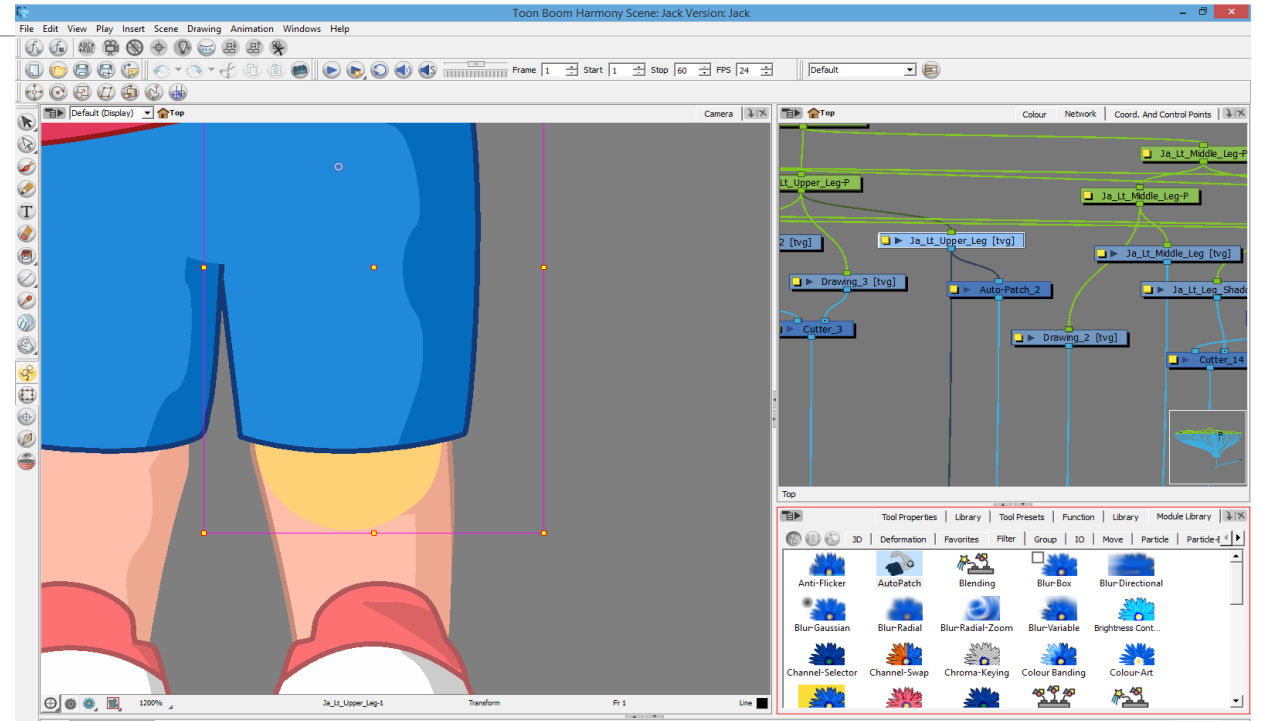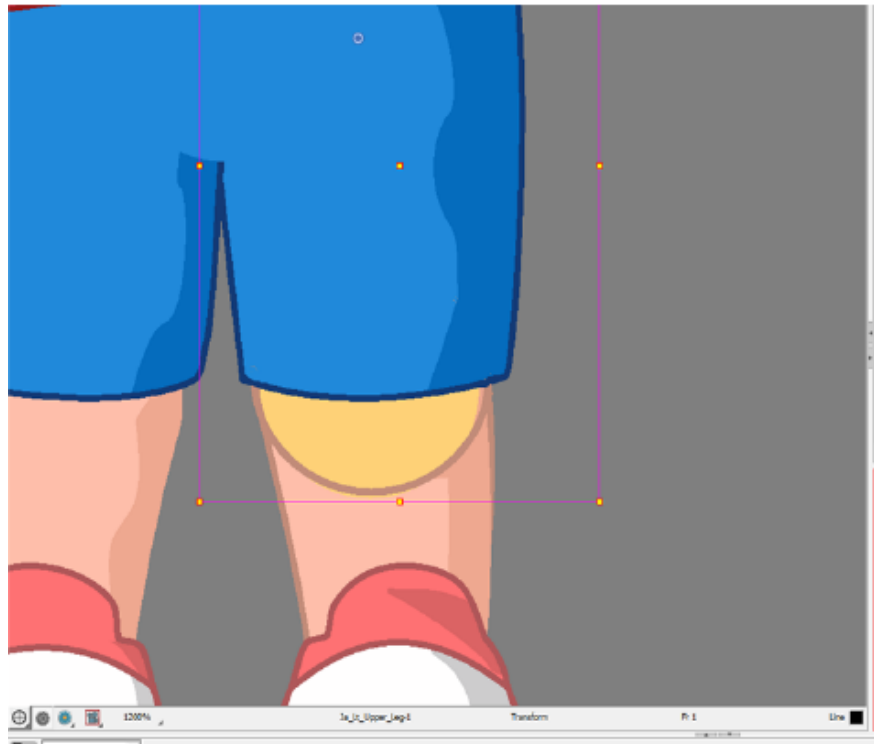
Character Hierarchy – Network View
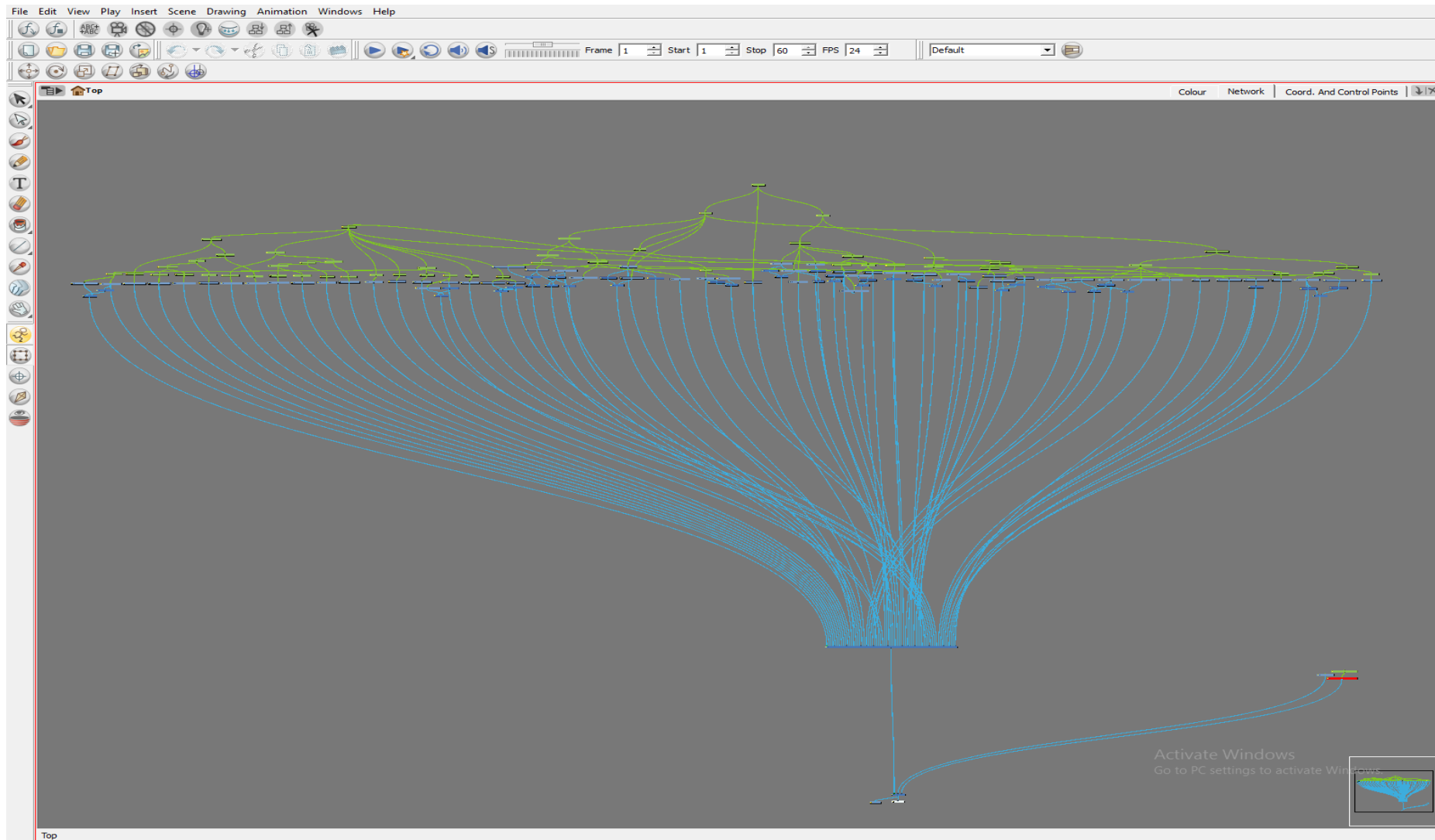
USE OF PEGS

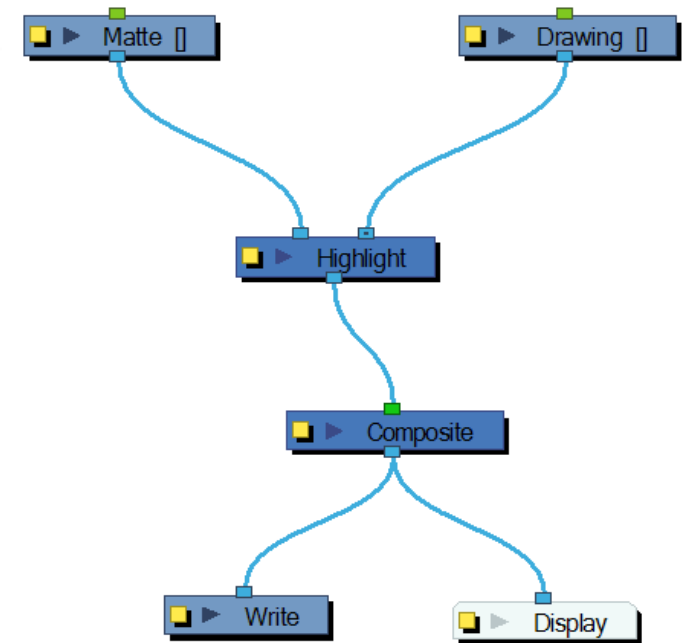Pegs used are attached to drawings to give them animation.

Rigging Helpers -AutoPatc

Autopatch used in hiding upper leg's contours
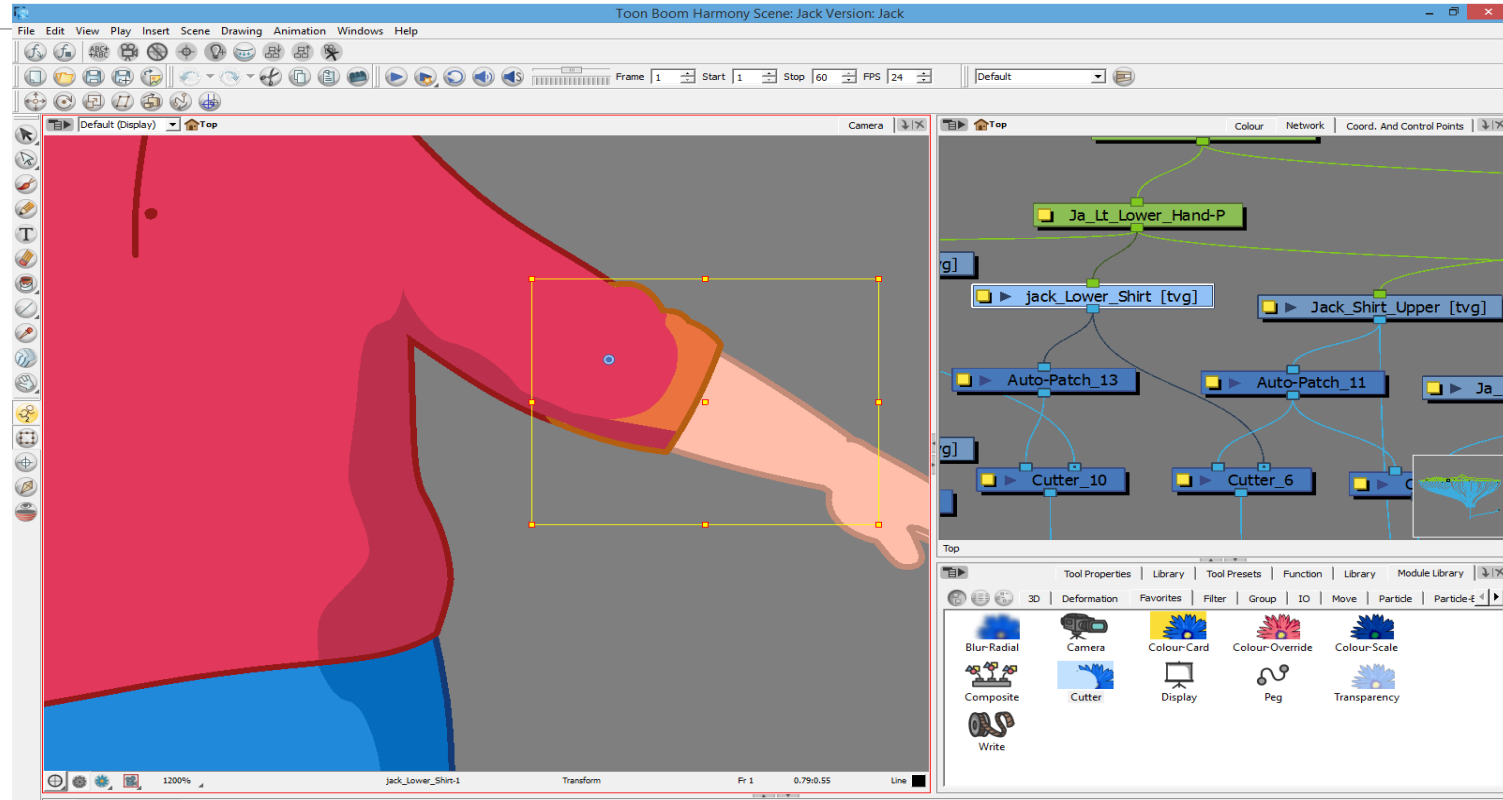Rules of autoPatch – layers of art (Line art, Colour art).
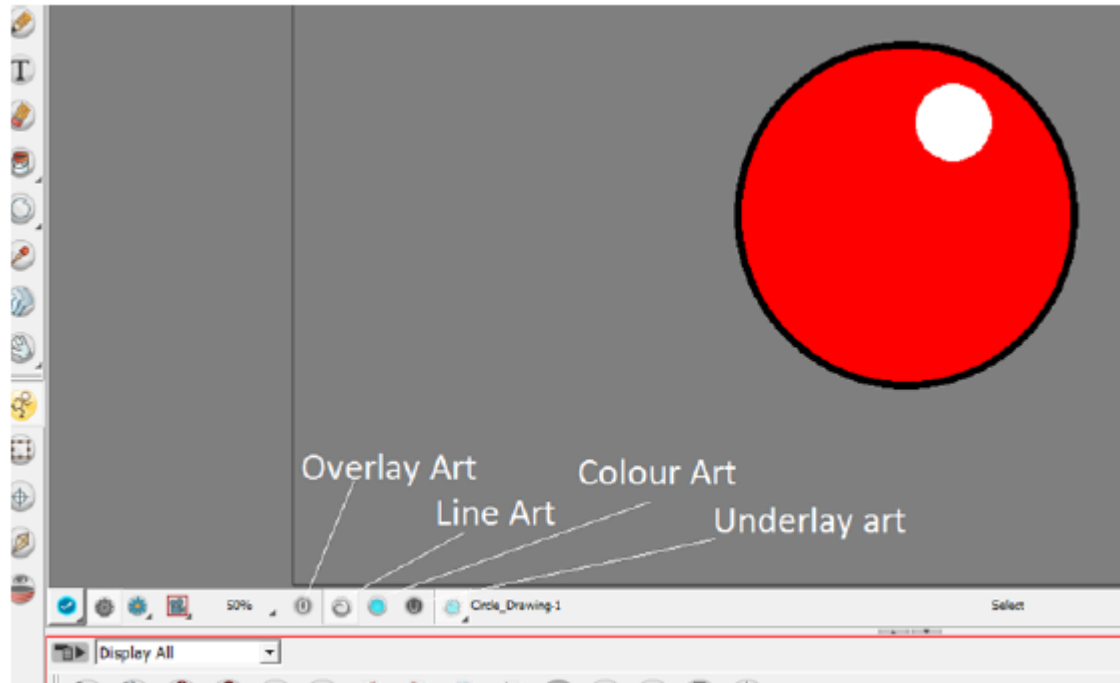
Rigging Helpers- Cutter

Cutter

Cutter filter
Applied to create
Patch

Sublayers

Overlay Art
Colour Art
Line Art
Underlay art

SHADOW AND ANIMATION

- Shadows are added at the end.

- Either using different sub layers (Overlay, Underlay) or using separate drawings.

- Animation involves moving PEGs of the respective body parts as required.

- The hierarchy works so as to give a life like movement to the component parts.

- Many a times, manual calibration of certain key positions has to be made.

- Number of Pegs increases as the number of actions on the same component increases.

Toon Boom Harmony - Shadows
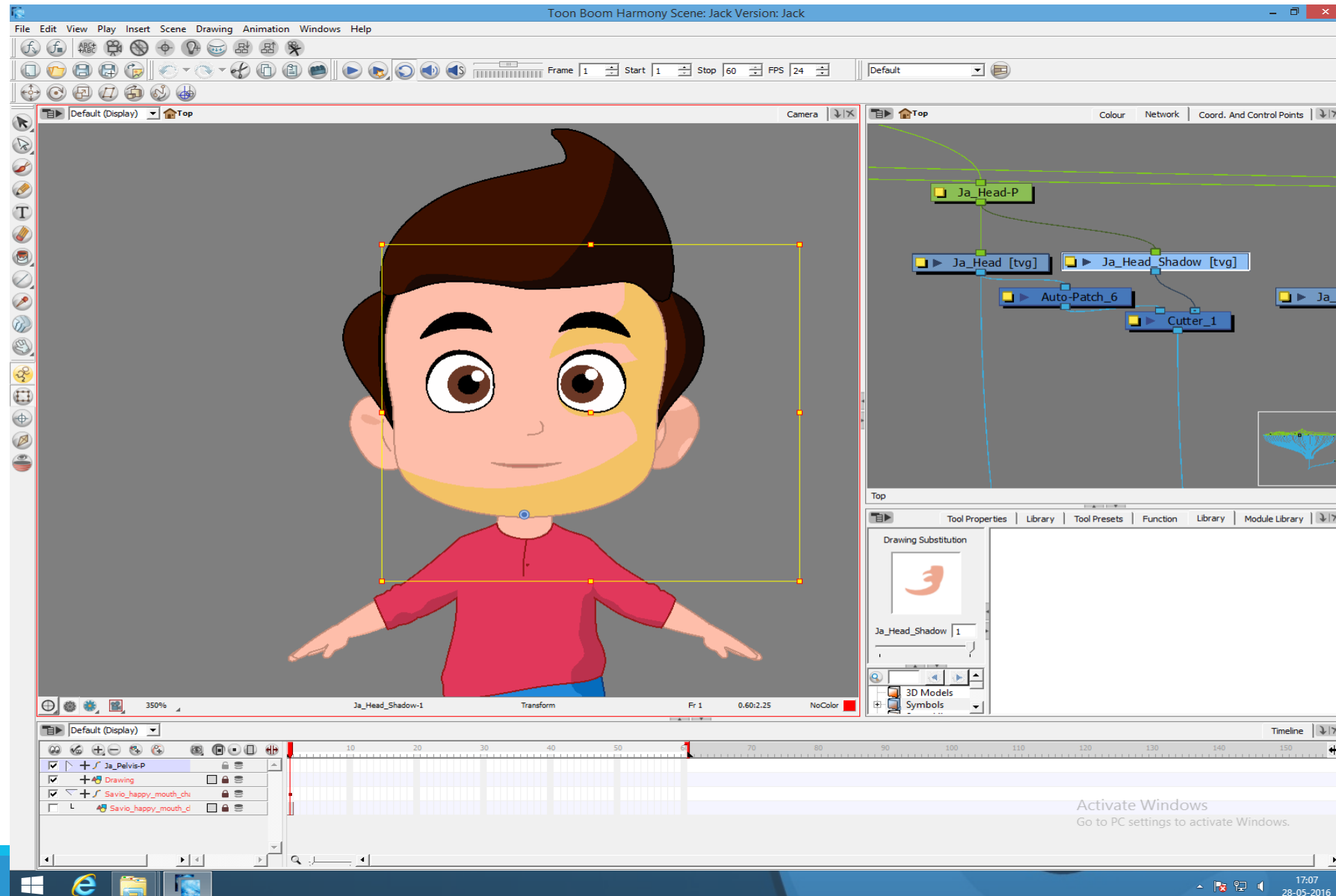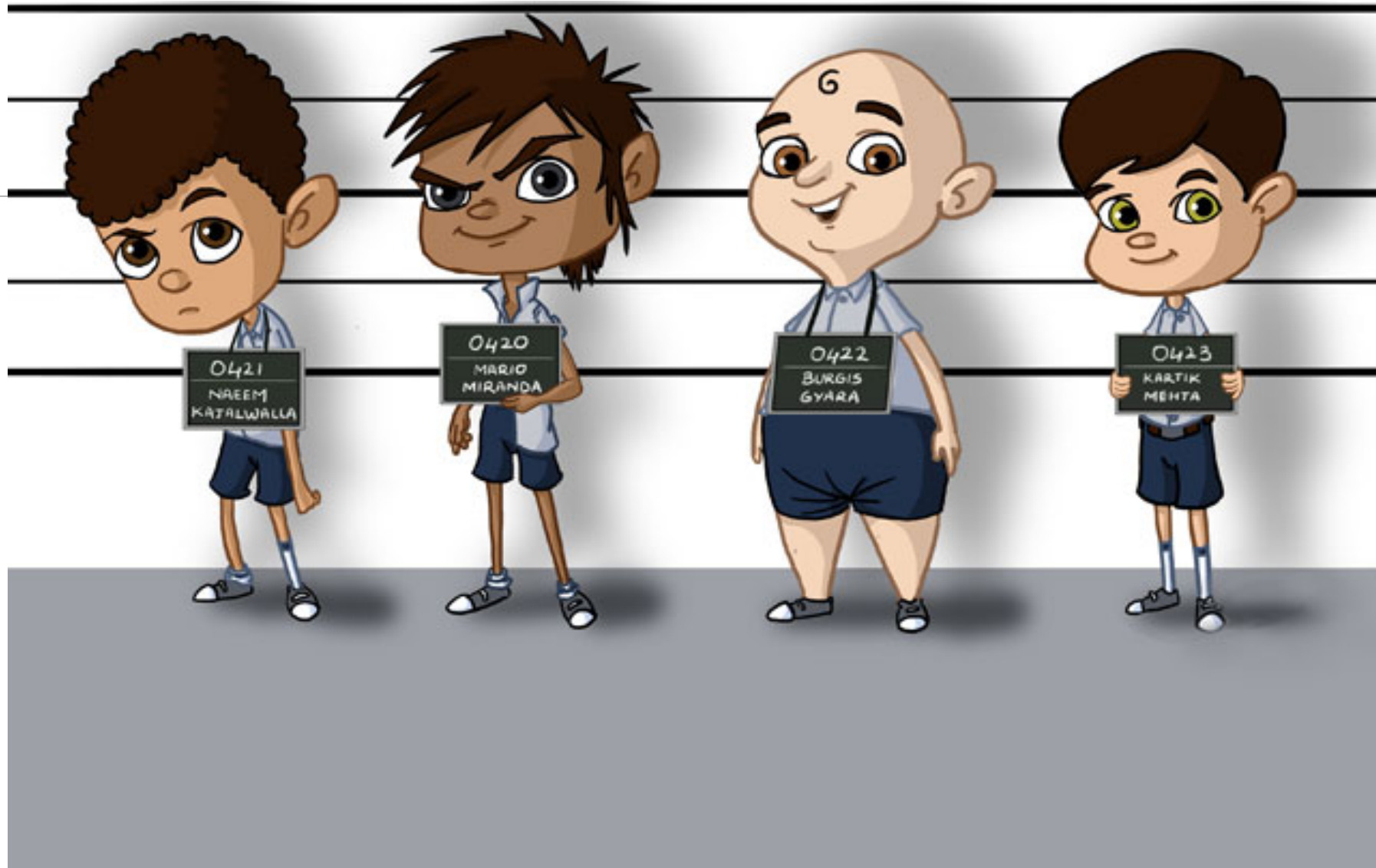
Characters for the web series Modern Activity.

PROPS and SHOTS

- Props are components other than characters.

- Props may have movable joints, may be static or may have multiple and complex parts that move in various ways.

- Images of props are used, which are traced over and parts are layered such that they can be easily animated.

- **Shots** are divided based on the storyboard.

- Every shot requires moving of the characters and props to give smooth motion.

- At certain times, shots can be reused so that the same shot, once finalised, can be used in multiple number of times in various scenes.

Shots Done

Many Shots for ongoing web series Modern Activity were completed.

Certain shots have also been modified to add the shadows, and prop animations.

Some shots were reworked completely as well.

The final shots are saved in the server to be combined with the rest of the shots for making the final movie.

Other Animations

a) Bouncing ball animations

b) Moving and Rotating links

c) Pendulum - Single and Double

c) Man picking up a glass of water

d) Man trying to lift a heavy stone

e) Human walk cycles

References

www.hopmotion.com/about-us

www.toonboom.com

THANK YOU