



## FACULTY OF ENGINEERING & TECHNOLOGY

### BCS -504 Computer Graphics & Multimedia

#### Lecture-40

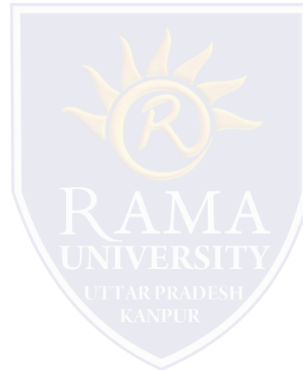
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# OUTLINE

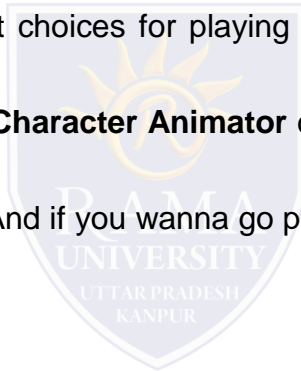
- **2D ANIMATION SOFTWARE**
- **ANIMATE CC (FORMERLY FLASH)**
- **TOON BOOM HARMONY**
- **TVPAIN**
- **CHARACTER ANIMATOR**
- **AFTER EFFECTS**



# 2D Animation Software

2D animation is **a great place to start** your animation journey. Most of the programs below are inexpensive and relatively easy to learn.

**Animate CC** and **After Effects** are great choices for playing around with 2D animation in both a hand-drawn form or by creating puppets, while **Character Animator** doesn't require any drawing at all, and uses your face as the driver for the animation. And if you wanna go pro, **Toon Boom Harmony** and **TVPaint** will be your best options.



# Animate CC (Formerly Flash)

Probably the **most popular 2D animation software** out there. Animate has a long lineage of animation making, dating back to the early days of internet video publishing. Its intuitive interface and relatively cheap price point make it a great pick for getting started with 2D animation.

**Read:** [Toon Boom Harmony vs. Flash \(Animate\)](#)

**Price:** \$20.99/Month



# Toon Boom Harmony

Hamony is a more advanced 2D software ideal for both frame-by-frame animation and rig-based animation.

It has advanced **rigging** systems, **effects** and **camera** tools. It is vector based, but the more advanced version also has the option for bitmap drawing.

**Read:** [Toon Boom Harmony vs. Flash \(Animate\)](#)

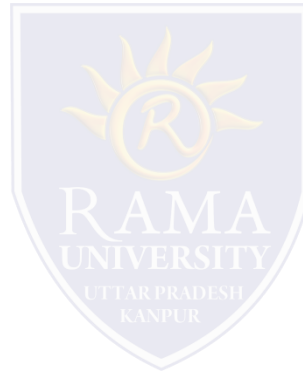
**Price:** \$24/Month



# TVPaint

A french animation software, TVPaint is the **all-in-one 2D animation software you'll ever need**. It's definitely more robust and complex than Photoshop, but it's also much pricier. This software is for professional animators and studios.

**Price:** €500 (€250 for students)



# Character Animator

A newer animation program with an interesting twist. Instead of animating the traditional way, Character Animator uses you use your web-cam and microphone to **automatically animate** a pre-built character in real-time, almost like **motion-capture**. This is a great option for beginners since it requires the least amount of animation experience.

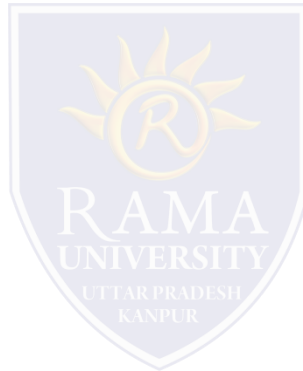
**Price:** \$20.99/Month



# After Effects

An interesting choice for 2D animation. After effects gives you great control when [creating rigs](#) for 2D using the puppet tool and different expressions. It's a **good choice** if you're already comfortable with the Adobe environment.

**Price:** \$20.99/Month





# Multiple Choice Question

## MUTIPLE CHOICE QUESTIONS:

Sr no	Question	Option A	Option B	OptionC	OptionD
1	Modeling and animation are loosely coupled. Modeling describes .....and their actions.	Graphics	control digit	control values	none of these
2	Animation describes how to vary the .....	control digit	control values	Graphics	All of these
3	There are a number of animation techniques are.....	User driven animation	Procedural animation	Data-driven animation	All of these
4	Kinematics describe the properties of shape and motion independent of physical forces that cause .....	shape	motion	size	scale
5	Keyframing is an ..... where motion curves are interpolated through states at times	animation technique	animator technique	keyframing	projectors

# REFERENCES

- <http://www.engppt.com/search/label/Computer%20Graphics>

