



Republic of Rwanda  
Ministry of Education



**RTB** | RWANDA  
TVET BOARD

## 2D PROPS DESIGN

**MMPPD401**

### DESIGNING 2D PROPS

#### Competence

**RQF Level:** IV

**Learning Hours**



**70**

**Credits:** 7

**Sector:** ICT

**Trade:** Multimedia production

**Module Type:** TVET CERTIFICATE IV IN MULTIMEDIA PRODUCTION

**Curriculum:** TVET Level 4 in Multimedia Production

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**Issued date:** May 2023

<b>Purpose statement</b>	This module provides skills, knowledge, attitudes, and behavior to be able to produce different assets that should be needed for specific media projects such as 2D assets for integrating into animation. At the end of this module, the trainee will be able to plan props design, create mood board, and develop digital models and present digital props.					
<b>Learning assumed to be in place</b>	Artistic skills, Digital drawing skills					
<b>Delivery modality</b>	<b>Training delivery</b>		<b>100%</b>	<b>Assessment</b>		<b>Total 100%</b>
	Theoretical content		30%	Formative assessment	30%	50%
	Practical work:		70%		70%	
	● Group work and presentation	30%				
	● Individual work	40%				
			Summative Assessment		50%	

### Elements of Competency and Performance Criteria

Elements of competency	Performance criteria
1. Plan prop design	<b>1.1</b> Script have been properly interpreted based on the project requirements
	<b>1.2</b> Frames have been scouted properly based on the project requirements
	<b>1.3</b> Storyboard have been interpreted properly based on the script direction

	<b>1.4</b> Designated software have attentively chosen in accordance with means of production.
	<b>1.5.</b> Cost have been properly estimated based on the equipment, logistic and team required
	<b>1.6.</b> Production book have been properly produced based on the project requirements
<b>2.</b> Create mood board	<b>2.1.</b> The production book have been properly interpreted based on the project requirement
	<b>2.2.</b> References have been properly gathered based on the script direction and project requirement
	<b>2.3.</b> Rough and refined sketches have been properly produced based on the drawing styles and techniques
	<b>2.4.</b> A mood board is properly created based on the script direction
<b>3.</b> Create digital assets	<b>3.1</b> Software tools have been properly selected based on the task requirements
	<b>3.2</b> Drafts assets have been properly created based on the context and purpose of the project
	<b>3.3</b> Texture have been properly added based on the visual design requirements
	<b>3.4</b> Asset's annotation have been properly set based on the script content
	<b>3.5</b> Orthographic projections of asset have been properly created based on the project requirements
	<b>3.6</b> Props are properly designed and saved based on the project requirements.

**Knowledge, Skills, and Attitude**

Knowledge	Skills	Attitude
<ul style="list-style-type: none"> <li>✓ Design principles</li> <li>✓ Colour theory</li> <li>✓ Principles of animation</li> <li>✓ 2D animation techniques</li> <li>✓ Perspective and depth drawing</li> <li>✓ Digital imaging</li> </ul>	<ul style="list-style-type: none"> <li>✓ Design skills</li> <li>✓ Creativity</li> <li>✓ Attention to details</li> <li>✓ Sketching</li> <li>✓ Digital illustration</li> <li>✓ Communication and collaboration skills</li> <li>✓ Time management skills</li> <li>✓ Marketing skills</li> </ul>	<ul style="list-style-type: none"> <li>✓ Attention to detail</li> <li>✓ Creativity</li> <li>✓ Collaboration</li> <li>✓ Flexibility</li> <li>✓ adaptability</li> <li>✓ Time management</li> <li>✓ Problem-solving</li> <li>✓ Passion</li> <li>✓ Openness to feedback</li> </ul>

	<b>Course content</b>
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Learning outcome 1: Plan prop design	Learning hours: 15
Indicative content	
<ul style="list-style-type: none"> <li>● Introduction to script               <ul style="list-style-type: none"> <li>✓ Script elements                   <ul style="list-style-type: none"> <li>● Scene heading (slug line)</li> <li>● Action description</li> <li>● Character names</li> <li>● Dialogue</li> <li>● Parentheticals</li> <li>● Transitions</li> <li>● Shot description</li> <li>● Slug lines and page numbers</li> </ul> </li> <li>✓ Script interpretation techniques                   <ul style="list-style-type: none"> <li>● Textual Analysis</li> </ul> </li> </ul> </li> </ul>	

- Character Analysis
  - Dramatic Structure Analysis
  - Theme Exploration
  - Contextual Research
  - Collaborative Discussions
  - Rehearsals and Experimentation
  - ✓ Script interpretation factors
    - Story and Narrative
    - Character Analysis
    - Tone and Mood
    - Action and Movement
    - Cinematic Techniques
    - Dialogue and Timing
    - Collaboration and Communication
  - Description of Location scouting
    - ✓ Location scouting approach
      - Research and gather references
      - Physical location
      - Virtual location scouting
      - Art and design books
      - Feedback and collaboration
  - Storyboard interpretation
    - ✓ Describing storyboard
    - ✓ Storyboard types
    - ✓ Storyboard interpretation techniques
      - Sequential flow
      - Shot types and framing
      - Character poses and expressions
      - Visual component
      - Camera angles and movements
      - Timing and pacing
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- Storytelling techniques
- Identification of equipment, logistics and team
  - ✓ Asset creation tools and equipment
  - ✓ Software and tools
  - ✓ Logistic and team
- Cost estimation
  - ✓ Identify items
    - Equipment, materials and tools fees
    - Human resources fees
    - Tax fees
    - Transport fees
    - Contingency fees
  - ✓ Estimating unit cost
  - ✓ Calculate grand total
- Produce Asset production book
  - ✓ Assets production book description
  - ✓ Arrange of assets production book
    - Concept art
    - Asset specifications
    - Typography
    - Blanding and logo usage
    - Animation workflow
- Introduction Orthographic projection

### Resources required for the learning outcome

<b>Equipment</b>	Computers, Scanners, Light tables, Printers
<b>Materials</b>	Sketchbooks, paper, Erasers, sharpeners, Ink/Toner cartridges, Storage devices, Pencils, pens, markers, Sculpting scissors
<b>Tools</b>	Drawing tablet, Graphic design software, 2D animation software, Textiles

<b>Facilitation techniques</b>	Demonstration, Practical exercise, Trainer guided practices, Brainstorming, Tutorial video
<b>Formative assessment methods /(CAT)</b>	Oral, Written assessment, Performance assessment

<b>Learning outcome2: Create mood board</b>	<b>Learning hours: 15</b>
<b>Indicative content</b>	
<ul style="list-style-type: none"> <li>● Production book interpretation <ul style="list-style-type: none"> <li>✓ Production books elements interpretation techniques: <ul style="list-style-type: none"> <li>● Read the entire document</li> <li>● Highlighting and taking notes</li> <li>● Creating an outline or summary</li> <li>● Identification of asset requirements</li> <li>● Analyze technical specifications</li> <li>● Understand art direction and style</li> <li>● Note workflow and collaboration guidelines</li> <li>● Consider review and collaboration processes</li> </ul> </li> <li>✓ Effective production book interpretation <ul style="list-style-type: none"> <li>● Read the Overview</li> <li>● Identify Asset Requirements</li> <li>● Understand Art Direction and Style</li> <li>● Study Design Guidelines</li> <li>● Analyze Technical Specifications</li> <li>● Note Collaboration and Workflow</li> <li>● Pay Attention to Quality Control</li> <li>● Document Deliverables</li> <li>● Consider Legal and Copyright Aspects</li> <li>● Seek Clarification</li> </ul> </li> </ul> </li> </ul>	

- Identification of references
  - ✓ Description of assets reference
  - ✓ Types of assets reference
- Rough and refined sketches drawing styles and techniques
  - ✓ Rough sketch production techniques
  - ✓ Refined sketches drawing styles and techniques
- Mood board description and creation
  - ✓ Advantages of using mood board
  - ✓ Types of mood board
    - Physical mood board
    - Digital mood board
- ✓ Elements of mood board
  - Images
  - Colors
  - Textures
  - Typography
  - Layout and composition
  - Object and artifacts
- ✓ Mood boards construction methods
  - Physical collage
  - Digital collage
  - Pinterest boards
  - Digital scrapbooking
  - Text and typography
  - Color swatches and palettes
  - Material and textures

#### Resources required for the learning outcome

##### Equipment

Computers, Scanners, Light tables, Printers



<b>Materials</b>	Sketchbooks, paper, Erasers ,sharpeners, Ink/Toner cartridges, Storage devices, Pencils, pens, markers, Sculpting scissors
<b>Tools</b>	Drawing tablet, Graphic design software, 2D animation software, Textiles
<b>Facilitation techniques</b>	Demonstration, Practical exercise, Trainer guided practices, Brainstorming, Tutorial video
<b>Formative assessment methods /(CAT)</b>	Oral, Written assessment, Performance assessment

Learning outcome 3: Create digital assets	Learning hours: 40
<b>Indicative content</b>	
<ul style="list-style-type: none"> <li>• Selection of asset software tools <ul style="list-style-type: none"> <li>✓ Hardware Requirement <ul style="list-style-type: none"> <li>• Graphic card</li> <li>• Processor</li> <li>• RAM</li> <li>• Storage</li> </ul> </li> <li>✓ Operating System <ul style="list-style-type: none"> <li>• Windows - Based asset creation software</li> <li>• Mac- Based asset creation software</li> <li>• Cross-platform software</li> </ul> </li> <li>✓ Features</li> </ul> </li> <li>• Creation of draft asset <ul style="list-style-type: none"> <li>✓ Description of digital assets <ul style="list-style-type: none"> <li>• 2D assets</li> </ul> </li> <li>✓ Sketching</li> </ul> </li> </ul>	

- ✓ Thumbnail drawing
  - ✓ Rough outline
  - ✓ Broking in values
  - Common techniques of adding texture
    - ✓ Brushes
    - ✓ Pattern
    - ✓ Blending mode
    - ✓ Impasto
    - ✓ Dry brushing
    - ✓ Crosshatching
    - ✓ Stippling
  - Adding annotation
    - ✓ Techniques of adding annotation
      - Text annotation
      - Callouts
      - Color coding
      - Overlay layer
      - Labels and numbering
      - Digital markup tools
  - Create orthographic projection
    - ✓ Object representation techniques
      - Front view
      - Top view
      - Side view
    - ✓ Orthographic projection techniques
      - Parallel projection
      - Projection planes
      - Hidden lines
    - ✓ Annotation and detailing
  - Saving props
    - ✓ Save in the appropriate format for intended use
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<ul style="list-style-type: none"> <li>• Video file formats</li> <li>• Image file formats</li> <li>• Document file formats</li> <li>• Vector file formats</li> <li>• 3D models formats</li> </ul> <p>✓ Backup and archive</p>	
<b>Resources required for the learning outcome</b>	
<b>Equipment</b>	Computers, Scanners, Light tables, Printers
<b>Materials</b>	Sketchbooks, paper, Erasers , sharpeners, Ink/Toner cartridges, Storage devices ,Pencils, pens, markers, Sculpting scissors
<b>Tools</b>	Drawing tablet, Graphic design software, 2D animation software, Textiles
<b>Facilitation techniques</b>	Demonstration , Practical exercise ,Trainer guided practices, Brainstorming ,Tutorial video
<b>Formative assessment methods /(CAT)</b>	Oral ,Written assessment, Performance assessment

## Integrated/Summative assessment

<p style="text-align: center;"><b>Integrated situation</b></p> <p>The Rwandan festival competition called UMUHUZA ART Festival has screened tens of thousands of animated films since it began in 2004. UMUHUZA ART signed a contract with INEZA ART studio to assist in producing various 2D animation assets including cars, tables, seats, wardrobes, soccer balls, beds, and mobile phones. However, the final produced assets were not on standard in accordance to provided script.</p> <p>Suppose that UMUHUZA ART hired you as a prop designer artist to create above-mentioned props to be submitted to UMUHUZA ART manager within 5hours.The final files must be in PSD, AI, and EPS with 1920*1080 resolution and RGB colors.</p>
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Resources					
<b>Tools</b>	Drawing tablet, Graphic design software, 2D animation software, Textiles, Script				
<b>Equipment</b>	Computers, Scanners, Light tables, Printers				
<b>Materials/ Consumables</b>	Sketchbooks, paper, Erasers, sharpeners, Ink/Toner, cartridges, Storage devices, Pencils, pens, markers, Sculpting scissors				
Assessable outcomes	Assessment criteria (Based on performance criteria)	Indicator	Observation		Marks allocation
			Yes	No	
<b>Learning Outcome 1. Plan prop design (20%)</b>	1.1 Script have been interpreted	Script title has identified			1
		Essential assets are elaborated from script			1
	1.2 Storyboard have been interpreted	Shot types are chosen			1
		Character poses are added to storyboard			1
		Camera angles and movement annotation are added to each frame			2
	1.3 Equipment, logistics and team have been	Editing software is selected			1
		Drawing materials are selected			2
		Computer hardware are selected			2

	1.4 Cost have been estimated	Items are identified			1
		Costs are determined			1
		Grand Total is calculated			1
	1.5 Production book have been produced	Concept art is developed			2
		Assets specification are identified			2
		Typography are chosen			2
<b>Learning Outcome 2. Create mood board (30%)</b>	2.1 production book has been interpreted	Proper technics are used			2
		Direction and style of the project are specified			2
		Production Quality is interpreted			2
	2.2 References have been gathered	Reference is chosen			3
		Chosen reference match with project goal			3
		Virtual locations are created			3
	2.3 Rough and refined sketches have been produced	Rough sketches are produced			3
		Roughs are refined			3
	2.4 Mood board is created	Mood board layout is created			3
		Elements of mood board are used			3
		Physical object is added to mood board			3
<b>Learning Outcome 3.</b>	3.1 Drafts assets have been created	Thumbnails are drawn			2
		Broking values are used			3

Create digital assets (50%)		Rough outlines are created			3
	3.2 Texture have been added	Pattern and brushes are used			3
		Cross hatching and stippling techniques are used			3
		Blending modes are used			3
	3.3 Asset's annotation have been set	Text annotations are used			3
		Callouts are used			3
		Overlay layer are used			3
		Digital makeup tools are used			3
	3.4 Orthographic projections of asset have been used	Projection plan is created			2
		Object presentation techniques are adopted			2
	3.5 Props are designed and saved	Car props is designed			2
		Bed is designed			2
		Mobile phone is designed			2
		Soccer ball is designed			2
		Wardrobes are designed			2
		Seats are drawn			2
		PSD Version is saved			2
		EPS format is saved			1
		AI format is produced			1
Asset produced has 1920*1080 resolution			1		
Total marks		100			

Percentage Weightage	100%
Minimum Passing line % (Aggregate): 70%	

## References

- A.Vera. (2009). Co-designing interactive spaces for and with designers : supporting mood-board making. *Semantic scholar*.
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- Atkins, A. (2020). *Fake Love Letters, Forged Telegrams, and Prison Escape Maps: Designing Graphic Props for Filmmaking*. London: Phaidon Press.
- Bang, j. (2022). *Script Analysis*. New York: Routledge.
- Dennis , G., & Charles, M. (1985). Linking Cognition and Behavior: A Script Processing Interpretation of Vicarious Learning. *Academy of management*.
- Richard, W. (2012). *The Animator's Survival Kit: A Manual of Methods, Principles and Formulas for Classical, Computer, Games, Stop Motion and Internet animators*. London: Faber & Faber.

## **ACRONYMS**

**CAT:** Continuous Assessment Test

**PSD:** Photoshop Document

**AI:** Adobe Illustrator

**EPS:** Encapsulated PostScript

**RGB:** Red Green Blue

**RAM:** Random Access Memory