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Create a Flipbook Animation

Course **Arts & Communication**
Section: **Multimedia Publishing**

What You Will Do

Create an animated walkcycle of a character using paper and traditional drawing tools.

- Create 24 frames
- Show a full walk cycle (left step and right step)
- Maintain consistent character proportions
- Include arm swing opposite leg motion
- Demonstrate visible weight shift
- Ensure the cycle loops seamlessly
- Finish the drawings by adding backgrounds and additional motion

Materials You Will Need

- Stack of index cards, drawing paper, or printer paper (at least 24 sheets cut to 3x5 inches)
- Pencil (no pen for initial drawings)
- Eraser
- Binder clip or rubber band

Optional but recommended

- Lightpad - A lightpad is a thin LED light panel that allows you to trace.

Walk Cycle

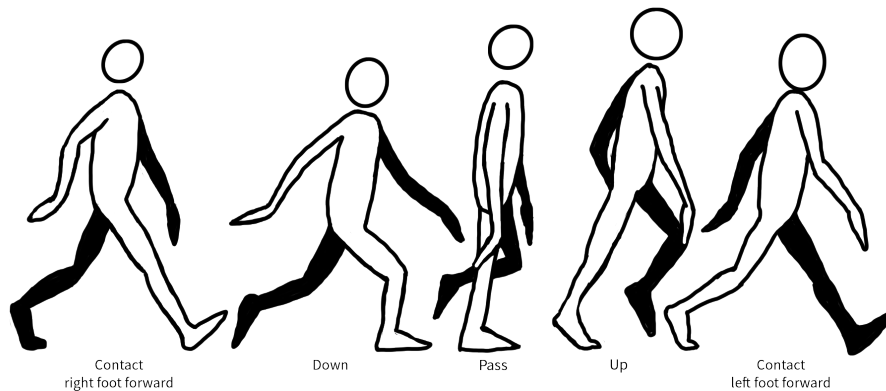
A walk cycle is a type of character study that animators do to explore how a character moves. It is something short that can play in a loop. This means that the movement ends in the same position it starts in. In other words, if the character's left leg is forward at the start, it should be forward at the end.

Important Terms

Frame Rate - Each still image is a frame. The frame rate (FPS) is the number of frames per second. The more frames you have, the smoother the motion will be. Film is usually 24 FPS and video is 30 FPS. Since animation requires so much work, it is usually 12 FPS (12 drawings for one second of animation).

Key Frame - A key frame is a frame that marks the beginning of a movement. Think of a ball bouncing. The key frames might be the ball in the air, the ball hitting the ground, and the ball flying up. The motion is then filled in between these frames.

Onion Skinning - Onions are made of lots of thin layers, so is animation. Animators place a new sheet of paper over the previous couple of drawings on a light table. This way, they can see where the motion was previously.



Step 1: Key Frames

- Sketch a simple character (a stick figure is acceptable for beginners).
- Draw each of these key frames:
 - ◊ Contact
 - ◊ Mid-stride, one leg is behind the body with heel up and toes touching the ground. The other leg is ahead of the body with the heel of the foot touching the ground.
 - ◊ Down
 - ◊ Both feet still touching the ground, knees bent, arms starting to swing.
 - ◊ Passing
 - ◊ One leg straight under the body, arm swung in close to the body.
 - ◊ Up
 - ◊ Body leans forward and is raised up on the toes of one foot.
 - ◊ Contact
 - ◊ Return to the contact position but with the opposite arm and leg forward.

Step 2: In-Between Frames

- Add motion between the keyframes.
- Maintain consistent spacing for smooth motion.
- Use light pencil pressure for clean corrections.

Step 3: Timing & Spacing Adjustments

- Flip pages rapidly to check motion.
- Adjust spacing to show:
 - ◊ Slower movement = closer spacing
 - ◊ Faster movement = wider spacing
- You can also add in-between frames to slow down and motion and make it smoother. Remove in-between frames to speed up motion.
- Ensure vertical bounce is visible but subtle.

Step 4: Loop Test

- Bind your drawn frames together with a binder clip or rubber band.
- Flip the animation repeatedly.
- Confirm final frame transitions smoothly into first frame.
- Make corrections as needed.

Step 5: Finish the Drawings

- Once you're satisfied with your drawings, add some polish
- Add backgrounds. You can add more life to your animation with some simple motion in the background like a bird in the sky.
 - Add life to your character by adding more motion like hair and clothes moving when they walk.