

# Building Walk Cycles

For use with the tutorial/ exercise **The Ball-Walker Vanilla Walk**

# The Walk Cycle Process

The Great Richard Williams has said that, “Walk cycles are just about the hardest things to animate.” So we’ll pay quite a lot of attention to building different cycles which will ultimately give you the knowledge and skill to easily create quality, cycled animation. It will also vastly improve your overall animation skillset.

Let’s begin with what’s known as a **Vanilla Walk**, which just means that it’s simple and basic, but perhaps lacking in character. *That* will follow.

The process for building a walk cycle is as follows:

1. The Contact Positions
2. The Passing Positions
3. The lowest point
4. The Highest point
5. Polish



Use this to guide you through the Ball Walker Exercise. Let's get started!

# 1. The Contact Positions

Our Vanilla Walk will be a **24 frame cycle**. The 'Contact' Positions will be at **1, 13 and 25**, or **0, 12 and 24**, depending on whether your starting frame is 0 or 1.



Contact Frame 0



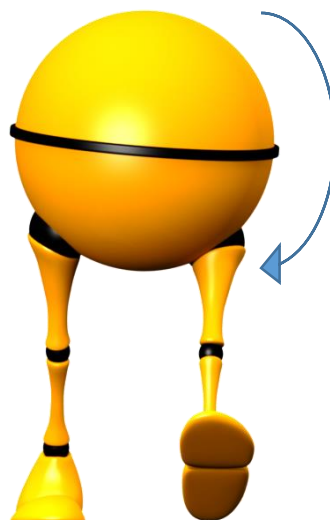
Contact Frame 12



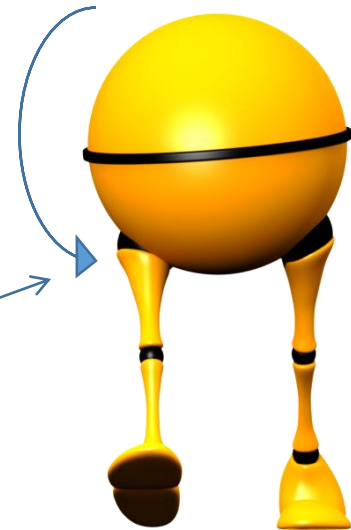
Contact Frame 24



Slight lean towards the contact foot

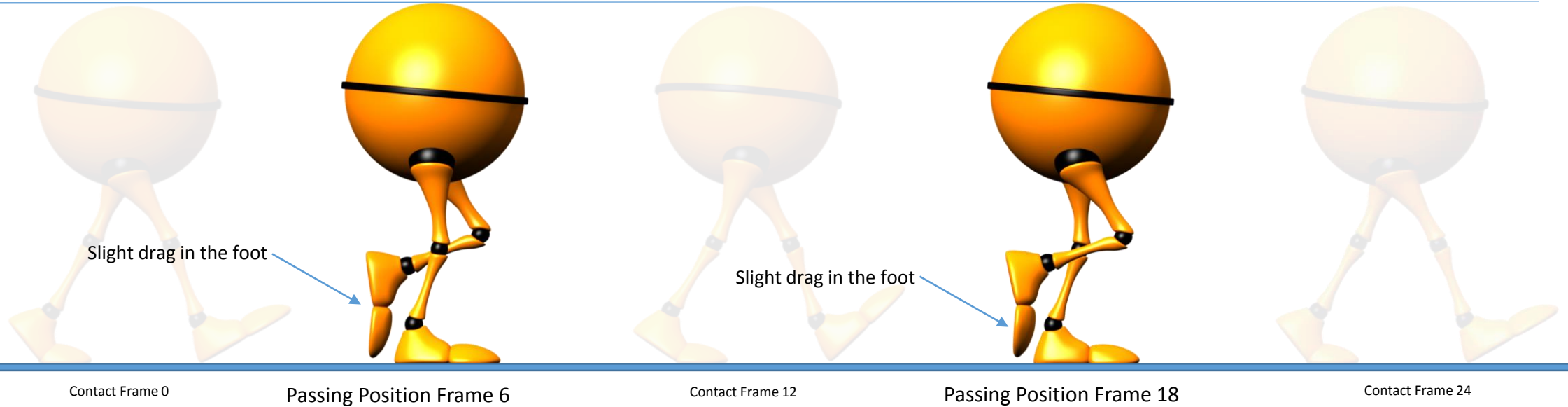


Note the rotation, the lean towards the contact foot



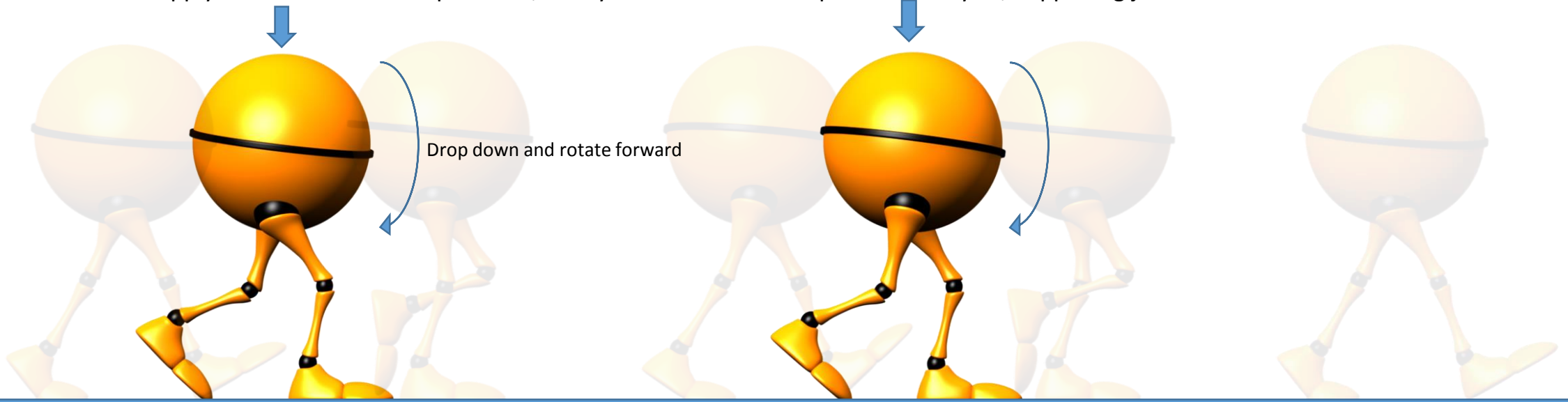
## 2. The Passing Positions

Next we add the Passing Positions, a Breakdown at the mid point or frame between the Contact Positions



# 3. The Down Positions

Here we apply the extreme 'Down' positions, or keys. This is the lowest point of the cycle, happening just after contact with the heels.



Contact Fr 0

Down Fr 3

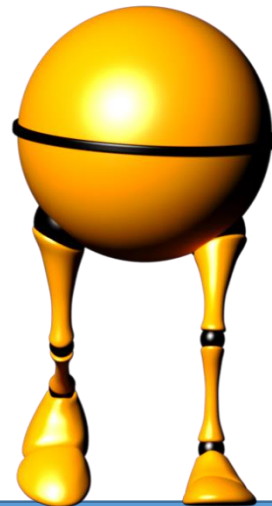
Pass Pos Fr 6

Contact Fr 12

Down Fr 15

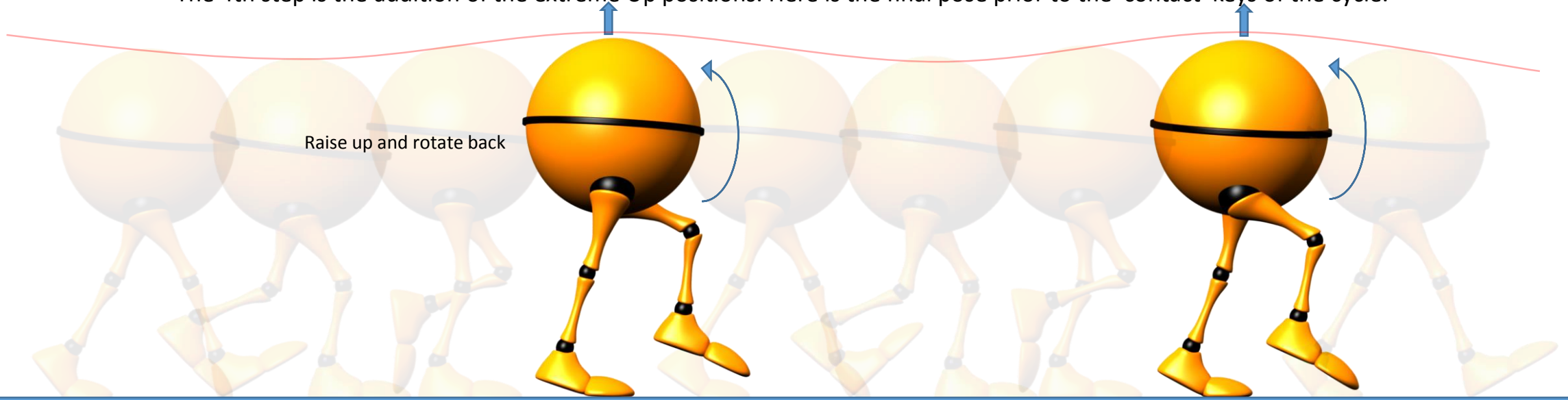
Pas Pos Fr12

Contact Fr 24



# 4. The Up Positions

The 4th step is the addition of the extreme Up positions. Here is the final pose prior to the 'contact' keys of the cycle.



Contact Fr 0

Down Fr 3

Pass Pos Fr 6

Up Fr 9

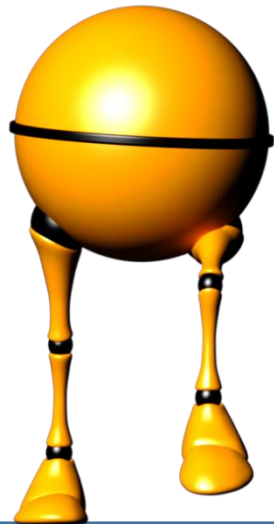
Contact Fr 12

Down Fr 15

Pass Pos Fr 12

Up Fr 21

Contact Fr 24



The Polish aspects are a little too difficult to communicate in print form so  
Study the **Ball-Walker Vanilla Walk Tutorial** to learn to:

1. Clean up your curves
2. Smooth your motion
3. Prepare your character for Translation
4. Translate your character

