

<http://rainman.astro.uiuc.edu/ddr/stellar/beginner.html>

Each of these movies, show different types of stars and how their placement on the HR diagram will change as they change over time. As you watch these movements on the diagram, think about the stages of a star's life cycle. Keep in mind that stars don't move on the graph – it just shows how bright and how hot a star is at different times of its life.

Try both Tracks on and off – decide which one is better at helping you understand what is going on.

Start with the Sun -

Why does it take so long for any changes?

What is going on that it jumps and suddenly shows up near the bottom?

What does the change in size tell you? How is it correlated with movement on the diagram?

Intermediate Mass Star –

Before you start, what do you expect to happen?

How is it different that the movie with the Sun?

High Mass Star -

What is happening to these stars? What area of the HR diagram are they moving to?

What is the flash?

High Mass Star Death - Supernova -

How is the color the star starts out as related to its place on the HR diagram?

What is going on at the end of this star's life? How does it end up?

High Mass vs Intermediate Stars –

How are these two type of stars different? What kind of stages are they going through?

Click on the link at the bottom for the Intermediate Level Interface. You can enter your own data for the beginning mass of a star or how much of the initial mass is from elements heavier than Helium. When the next page shows, wait a minute or two and the site will create a movie of your star. Try a couple and describe the type of star you created and what happened to it.

Check your understanding – go to *Interactive HR diagrams*

[http://aspire.cosmic-ray.org/labs/star life/hr\\_interactive.html](http://aspire.cosmic-ray.org/labs/star%20life/hr_interactive.html) and click on the link at the bottom of the page. Take the Interactive quiz. Did you get them all right on the 1<sup>st</sup> try?