In this animation, the lens is movable, but the object is not  \textcolor{red}{(position is given in meters)}. Initially, you have a lens of an unknown focal length \textcolor{red}{(that you cannot adjust using the slider)}. \textcolor{red}{Restart}.

\textbf{Worksheet for Exploration 35.3: Moving a Lens}

\begin{itemize}
  \item[a.] What are the object and image distances for the lens? Find the focal length of the lens.
  \begin{align*}
    d_o &= \underline{\phantom{1234}} \\
    d_i &= \underline{\phantom{1234}} \\
    f &= \underline{\phantom{1234}} \\
  \end{align*}

  \item[b.] There is another spot where you can put the lens that will give an image at the same position \textcolor{red}{(on the blue screen)}. Move the lens until an image appears at the same spot \textcolor{red}{(on the blue screen)}. What are the object and image distances this time?
  \begin{align*}
    d_o &= \underline{\phantom{1234}} \\
    d_i &= \underline{\phantom{1234}} \\
  \end{align*}

  \item[c.] For a given distance between an object and a screen, develop an equation for the two spots where you can place a lens to get a clear image on the screen. Verify your expression for a \textcolor{red}{lens with an adjustable focal length} \textcolor{red}{(use the slider to change the focal length)}. Note that when you click or drag this lens, the focal length \textcolor{red}{(f.l.)} appears on the screen.
\end{itemize}