Doceri is branded as “an Interactive Whiteboard for iPad” and allows users to control, annotate and record presentations on a presentation workstation using wireless internet connections. The Doceri software provides inexpensive smart board functionality with great flexibility. This presentation discusses our experience using Doceri for small introductory physics classes. In addition to standard smart board functions, we’ll discuss “in seat” student board work and out of class videos for additional examples and lecture snippets.
What is Doceri?

- “Remote Desktop” control from iPad
  - Internet connection required for both
    - Watch out for firewalls!
    - iPad & computer do NOT need to be on the same network
  - With many classroom oriented features
    - Ease of use (especially making connection)
    - Annotation
    - Recording (snapshot, video)
  - (relatively inexpensive) Smart Board!

My experiences are limited to small classrooms (10 -35 students)
Doceri in the Physics Classroom

- Smart Board Function, with bonuses
  - Annotation, worked examples
    - Images posted in class management system
  - Portability within classroom
    - Students can participate without leaving their desks
      - Control simulations (OSP apps, PhETs, etc)
      - Board Work
Example: A motorist traveling with a constant velocity of 15 m/s (about 34 mph) passes a school crossing, where the speed limit is 15 mph. Just as the motorist passes, a police officer on a motorcycle waiting at the crossing accelerates at a rate of 3.00 m/s² in hot pursuit of the motorist.

How much time elapses before the officer catches up with the motorist?

What is the officer’s speed at this point?

How far beyond the crossing are the vehicles at this point?
Driving Doceri: tablet view

How far beyond the crossing are the vehicles:

\[ x = \text{driver catch up} \]

\[ x_0 + v_0 t + \frac{1}{2} a t^2 = x_0 + v_0 t + \frac{1}{2} \]

\[ \frac{1}{2} a, t^2 = V_0 t \]
Driving Doceri: human view

How far beyond the crossing are the vehicles?

\[ \text{distance} = \frac{1}{2} \text{at}^2 \]

\[ x_0 + \frac{1}{2} \text{at}^2 = x + \text{ut} \]

\[ \frac{1}{2} \text{at}^2 = \text{V}_{0x} \text{t} \]
Doceri out of the Physics Classroom

- “Problem/Example of the Week”
  - Video or images
- Snow Days
  - Short Videos + Activities
Tension over a frictionless pulley: A weight $w_1$ slides on a frictionless 15° slope. A cable attached to the weight is also attached over a pulley to a counterweight $w_2$ chosen to just counter balance $w_1$, so that the entire system moves at constant velocity. Determine $w_2$ in terms of $w_1$. 

![Diagram of the system with a weight on a 15° slope and a pulley with a counterweight attached.]
Doceri Tips

- Use a Stylus
- Learn Multitouch gestures
  - Zoom
  - Pan
- Practice
- Support
  Colleagues, Tech Support, Instructional Design Specialists
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