Safety Vest Lesson Plan

Instructor Information:
The DAF/MSF do not endorse any particular airbag vest system.
This lesson plan is to explain the benefits of use only, to be briefed before, or after your MSF course.
The briefing should take between 5-10 minutes including Q&A.

Benefits of Use:
Why should you invest in an Airbag Safety Vest?
- Blunt Force Trauma is the main factor in serious motorcycle injuries and deaths.
- Head trauma is reduced by approximately 80% while wearing safety vest.
- Statistics indicate that forward momentum in a crash is reduced by roughly 60% for the rider in an airbag vest or jacket.
- Riders have tested this gear on different surfaces and suffered a few bruises upon impact instead of broken bones, abrasions, or head and neck trauma.
- The initial cost of the Safety Vest is cheaper than medical costs or potentially losing your life.
- Airbag vests originally came from the equestrian world for riders on tall horses. The technology was adapted to the MotoGP world in the early 2000s and has grown to a commercially available product today.

Styles: Tethered vs. Wireless
Tethered:
Tethered airbags were the first to appear in jackets and vests they are a simple and effective solution. Put the trigger on a cord, fix the cord to the bike, and if you fall off, the bag activates.
PROS:
- This tech has been around the longest and is well refined at this point
- Most affordable and simplest to use
- They can be recharged by the rider at a low cost, due to their basic design
- They do not have batteries to recharge
- Primary design for off-road riders where falls occur more often (reduced chance of inadvertent deployment)

CONS:
- You must separate from the bike for the airbag to go off
- Tether must be connected to deploy
- Hop off the bike without unclipping and you could waste a gas cartridge (Unlikely as tether stretches)

Wireless:
An algorithm-based system does not use a physical connection to the bike. It uses you, the rider, to determine when to deploy.
PROS:

- These advanced airbag systems use an array of sensors to detect impacts and deploy the airbag. A small computer monitors the rider's condition up to 1,000 times per second.
- When these airbags are sent away after a deployment, they are inspected by techs before being reset/returned.

CONS:
- These airbags tend to be more expensive to purchase and service
- The airbag systems can't be recharged at home without certification
- Batteries will need to be recharged occasionally
- Algorithm-based airbag systems might only fit into a limited range of jackets, depending on how the manufacturer has designed them