



Robotic Cleaning and Coating Pros and Cons

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Presenters



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Disclaimer

This presentation is not intended to be a comprehensive program covering all aspects of this topic. All technicians are encouraged to read and follow all applicable standards, codes and regulations related to this topic.

- ✓ It is the responsibility of each individual contractor to follow local building codes and licensing requirements and to work safely in accordance with OSHA guidelines.
- ✓ It is the contractor's responsibility to take proper precautions on each project to prevent cross contamination. Always take the health and safety of the building occupants into consideration before you conduct any cleaning procedures.
- ✓ All of the following tips are only general tips. They do not cover every situation and it is your responsibility to adapt these tips to the individual system you are working on.
- ✓ The Instructor is not responsible in any way for the work you perform after viewing this slide show. You are responsible for your own work.
- ✓ The views and opinions following are the instructors opinions and not necessarily the official position of the National Air Duct Cleaners Association.

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Pros

What We'll Learn

- ITEM 1 Can they do what we want?
- ITEM 2 Where can we use them?
- ITEM 3 Will they replace a helper?
- ITEM 4 How much do they cost?

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Can they do what we want?

- They can reach areas where access is limited
- Camera will help see what you are doing
- Remote controlled (helps if you having gaming experience)
- Some are multi use designed to inspect, clean and coat
- *Better control when spraying coatings

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Can they do what we want?



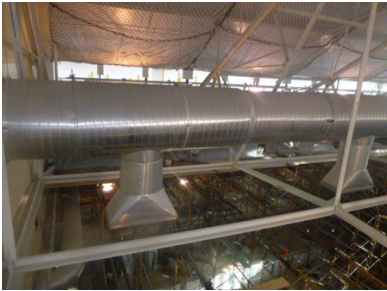
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Where can we use them?

- Ducts large enough for the size robot you have but not too big
- Metal, Lined and Fibrous Glass Duct (ductboard)
- Round, Rectangular and Square Duct
- Areas with limited access –Most places you use conventional tools

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Where can we use them?
(over a college gym pool)



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Will robots replace a helper?

- They may cut some labor costs.
- You still need to access the ductwork.
 - Access openings and closures, door installations
- Someone has to get coffee!
- It really depends on what task you are performing with the robot equipment.

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Will robots replace a helper?

- Replaces cousin Eddie as a helper but you still need talented help.



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Cons

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Can they do what we want?

- Access may be limited due to duct configuration or components in the way
- Camera may get obscured by dust
- Remote controlled requires pulling a cable and possibly air or coating line
- All require proper care and maintenance
- When using robotic cameras during inspections, use appropriate engineering controls to avoid potential cause cross-contamination of the system.

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Can they do what we want?



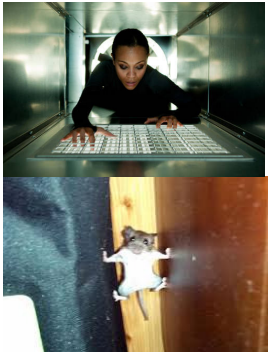
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Where can we use them?

- They will not fit in smaller ducts
- They will not work in flex duct
- They do not have an anti-gravity feature so vertical shafts are out
- Need to watch out for screws-I have not seen "movie duct" on a job site!

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Where can we use them?





Will robots replace a helper?

- This would really depend on what you are doing
- My Opinion Only
 - Inspections yes
 - Cleaning no
 - Coatings no
- But they may lessen time on the job site!




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Cost

Pros and Cons
Did we forget this?

- This is very dependent on what you are going to use the robot for.
 - Inspection only?
 - Cleaning?
 - Coatings?
- All of the above
 - Speak with our vendors and you decide




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Decisions

- Tracked or wheeled
- What will I use it for
- Who will be using it most
- Will techs come back from a job saying "we couldn't do the job today, it needs the robot"?


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Conclusion

- Time for some hands on with robots lent to us by our vendors!



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