

By Lacy Wise



Forget everything you think you know about manufacturing. Today, companies make things using robots, 3D printers, artificial intelligence, and more to build the future in safe, clean, cutting-edge manufacturing facilities.

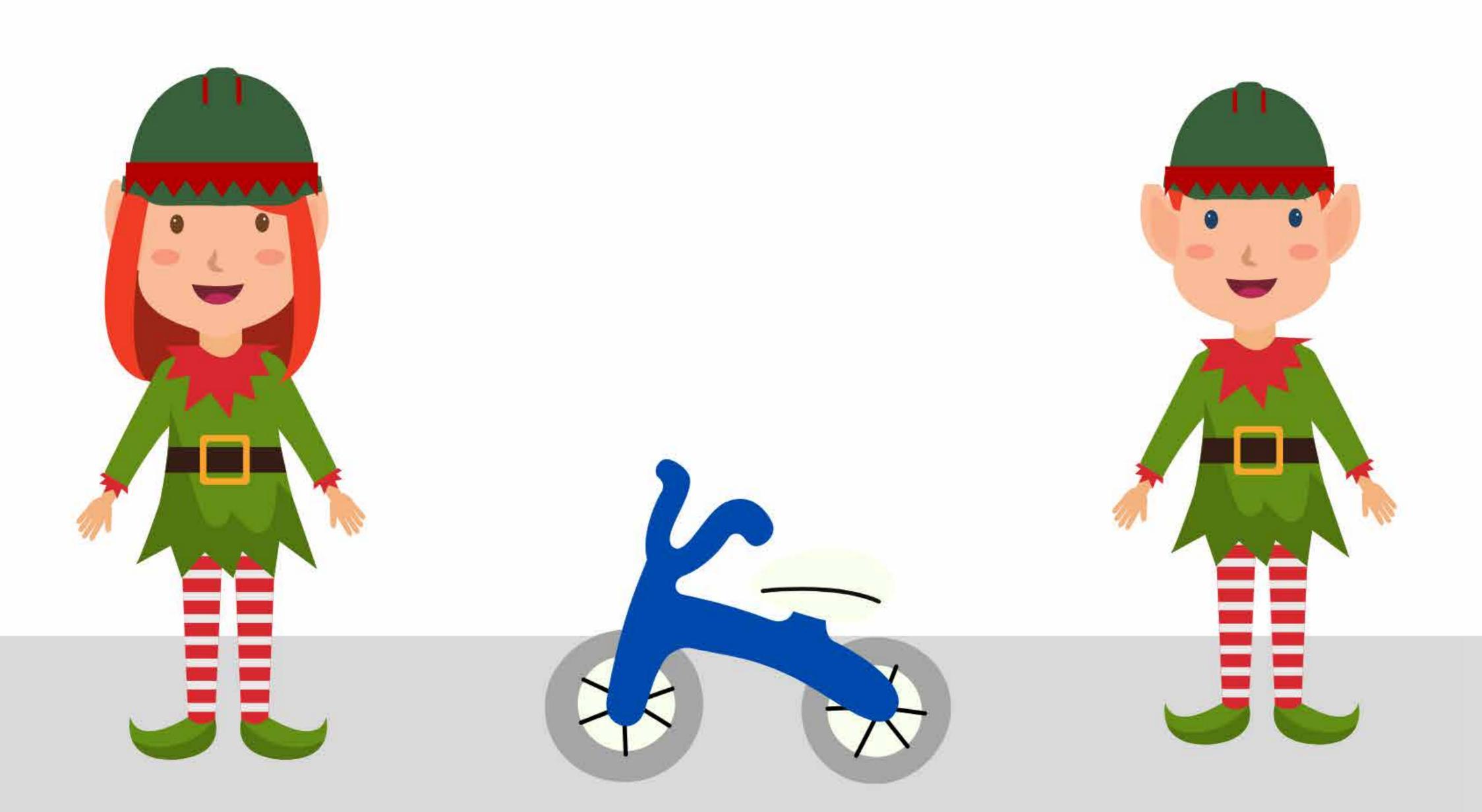
At AMIP we're committed to the passionate pursuit of manufacturing excellence. AMIP's support of the regional workforce development system ranges from connecting our employer partners to students of all ages for career exploration, identifying talent recruitment best practices from across the country, to building better bridges between our manufacturers and the adult workforce programs designed to support their talent pipelines.

This story helps to illustrate how people work with automation in our modern manufacturing facilities to meet the demands of customers.

If you're interested in learning more about how it works outside of the North Pole contact us at www.advmfgip.org.

Sandy and Finn are Santa's lead elves.

They live in the North Pole and their job is make sure every child on the nice list will get presents from Santa, and that those presents will get delivered on Christmas Eve.



This is a very rewarding job for elves. With an estimated 1.9 billion children all over the world, Santa trusts his team to make all the toys, wrap the presents and pack them in his sleigh to deliver to all the kids on the nice list.



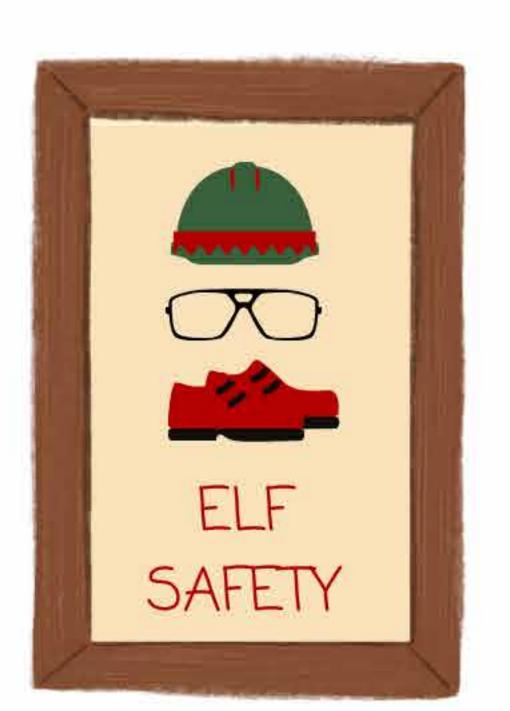
Together, Santa and his trusted elves have learned the fastest ways to make toys. The elves use computers to keep track of how many toys are ready and how many they need to complete by Christmas. The elves can see the quantities and style of toys needed from anywhere.

For their safety, any time the elves are in a North Pole workshop they wear hardhats, safety glasses and steel-toe slippers.

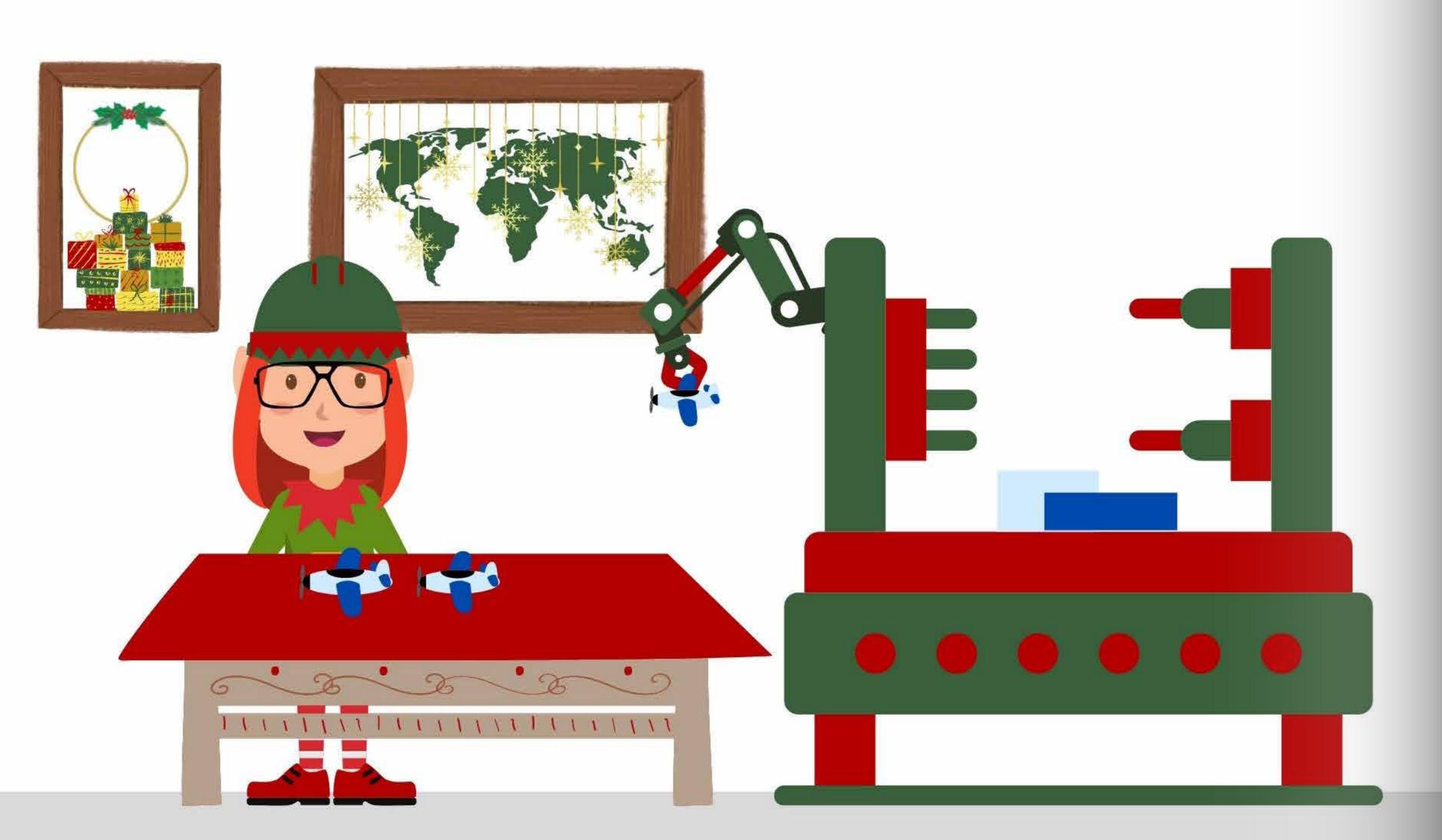








Sandy's main job is to make sure she has enough material to make the toys. Her elves order and load materials like plastic resin, metal, and wood into machines.



Once a batch of toys are complete, Finn's team of elves carefully look over all the toys. They remove any broken parts and use conveyor belts to send the toys that pass inspection to be wrapped.



Robots are used to stack and wrap all the toys. Once a toy is ready, Finn and his team will check it again and assign it to a child on the nice list. They keep track of who will receive it and where each toy will be delivered.

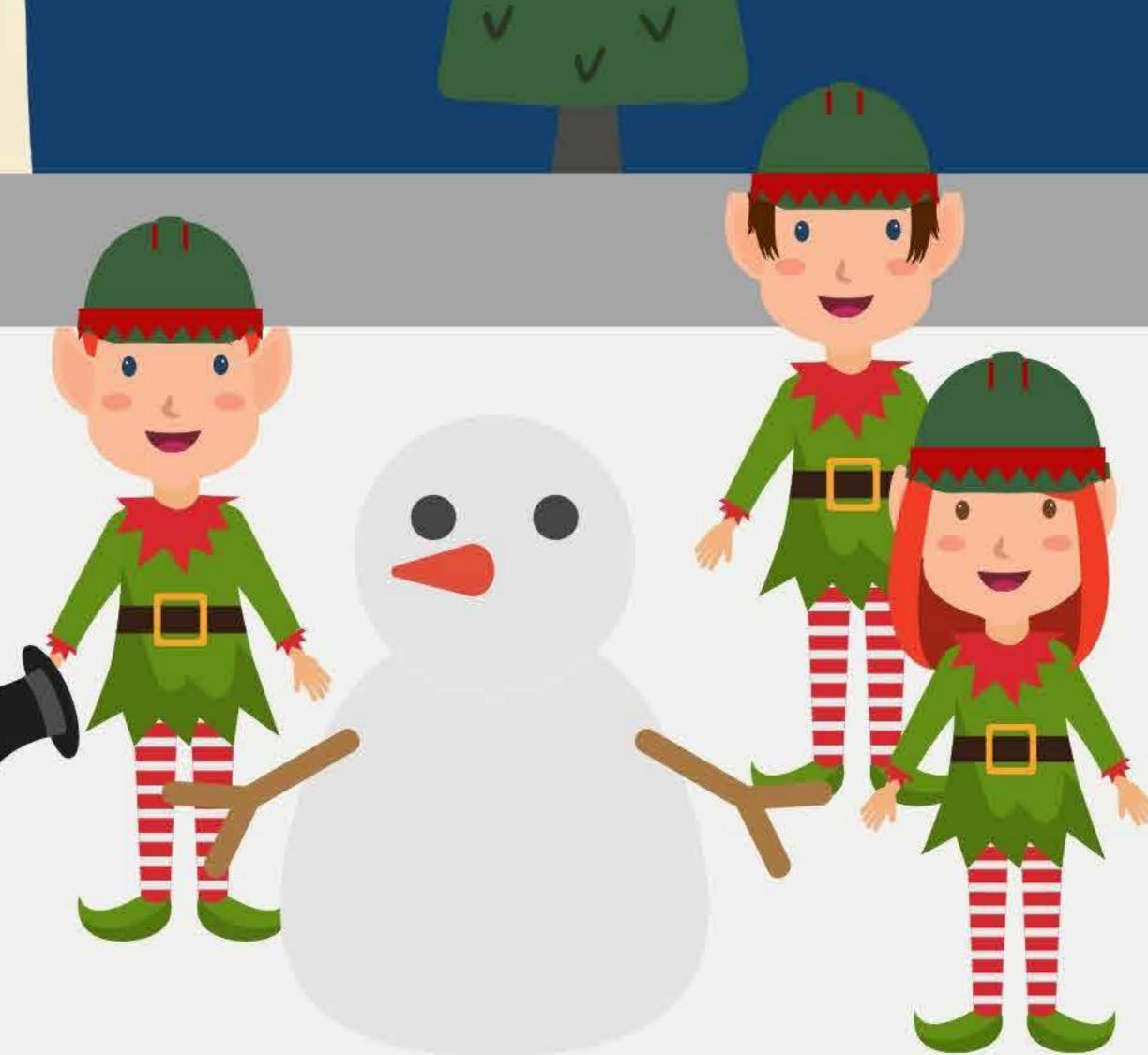
Sometimes the sequence of making toys is stopped, because the equipment breaks down or the elves did not order enough material. Some elves are great at tinkering. They can repair any damaged robot, conveyor or machine.



With help from all the elves performing their jobs, Santa's workshop can produce toys all year round... even when the elves sleeping or playing outside!







On Christmas eve, Santa's sleigh is filled with the correct number of toys. Santa checks his list and compares it to the elves' data.













As long as the machines are running smoothly, Santa and the elves can do their jobs from the North Pole or take a vacation.





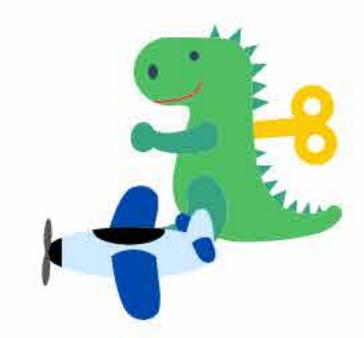
















Advanced manufacturing increases productivity, enhances economic strength, drives innovation, and provides rewarding career opportunities. The National Association of Manufacturers estimates that by 2028 manufacturers will need to fill 4.6 million jobs. The institutes within the Manufacturing USA network are helping to define the skills and training needed to satisfy manufacturers' future requirements.

Industrial careers are rewarding. In Southwest Ohio, manufacturers offer numerous benefits and opportunities to grow through internal training and higher education. Interested in a career in manufacturing?

## Learn more at www.advmfgip.org

