Robot! Robot! Intelligent machines helping to revolutionize pizza industry

By Associated Press, adapted by Newsela staff on 09.20.16 Word Count **592**



A robot puts a pizza into an oven at Zume Pizza in Mountain View, California, August 29, 2016. The startup, which began delivery in April, is using intelligent machines to grab a slice of the multi-billion-dollar pizza delivery market. Photo: AP Photo/Marcio Jose Sanchez

MOUNTAIN VIEW, Calif. — Zume Pizza has an unusual way to make its pizza pies. The Mountain View, California company uses robots. In April, Zume began using the intelligent machines to help prepare pizzas in hopes of grabbing a slice of the pizza delivery market.

It is one of a growing number of food technology companies using robots and software to change the restaurant industry.

Alex Garden co-founded Zume Pizza. Before that, Garden was also president of mobile game maker Zynga Studios and worked for Microsoft. Talking about Zume, Garden said, "We're going to eliminate boring, repetitive, dangerous jobs, and we're going to free up people to do things that are higher value."

More Robots Are On The Way

In the kitchen, pizza dough travels down a conveyor belt to machines that add sauce. Then, they carefully slide the uncooked pies into an 800-degree oven. Soon, Zume will add robots that make the dough and add cheese and toppings. They will also take the pizzas out of the oven, slice them up and box them for delivery.

Julia Collins is Zume's other co-founder and CEO. She says, "We automate those repetitive tasks so that we can spend more money on higher quality ingredients." Collins also says, "There will always be a model here at Zume where robots and humans work together to create delicious food."

Mountain View is in the Silicon Valley, a nickname for part of the San Francisco Bay Area that is home to many of the world's high-tech companies. In the restaurant industry there and elsewhere, technology startups are building robots to help reduce labor costs. The machines also speed up production and improve safety.

Momentum Machines, another company nearby, is building robots to make gourmet hamburgers. Meanwhile, BistroBot created a machine that makes sandwiches while customers watch.

Robots Can Do The Basics Better

Jay Reppert co-founded BistroBot and says the company uses machines to do some of the common jobs found in sandwich shops. He says, "It's quicker, it's cheaper, it's more consistent and it's this really fun experience to share with people."

Ken Goldberg leads a machine lab at the University of California, Berkeley. Goldberg says robots can make simple foods such as pizza, burgers and sandwiches. However, they will not take over restaurants anytime soon. Robots still struggle with tasks that require fine motor skills, judgment and taste.

"There are so many jobs in food service that are so complex that it will be a very long time before we have robots doing them," he says. Goldberg insists that human restaurant workers still have important skills.

Zume Pizza has about 50 human employees now. Its founders say that rather than fire any of them, workers will be moved into new jobs as robots take over more kitchen work and new locations open.

There is still more work than we have people, Garden says.

Pizza Delivery Also Ripe For A Change

Zume also wants to bring new ideas to pizza delivery. The company plans to send out trucks this fall equipped with 56 ovens that can bake pizzas while on the way to customers. Dozens of orders can be delivered before the trucks have to return to the restaurant.

Zume is trying to shorten delivery times as well. It has software that knows when customers will order and what kind of pizzas they will want.

Charity Suzuki regularly uses the Zume mobile app to order pizza, and she is not bothered by the robot cooks. She says she cannot tell the difference between a robot- or humanmade pizza.

Quiz

- 1 Which two sentences from the article contain central ideas of the article?
 - ^{1.} It is one of a growing number of food technology companies using robots and software to change the restaurant industry.
 - ^{2.} Soon, Zume will add robots that make the dough and add cheese and toppings.
 - ^{3.} Mountain View is in the Silicon Valley, a nickname for part of the San Francisco Bay Area that is home to many of the world's high-tech companies.
 - ^{4.} He says, "It's quicker, it's cheaper, it's more consistent and it's this really fun experience to share with people."
 - (A) 1 and 2
 - (B) 2 and 3
 - (C) 3 and 4
 - (D) 1 and 4
- 2 Which statement would be MOST important to include in a summary of the article?
 - (A) The company wants to get rid of boring and dangerous jobs so people can do more important things.
 - (B) Robots are able to put pizzas into an amazing 800-degree oven.
 - (C) Zume pizza has about 50 lucky human employees right now.
 - (D) Customers cannot tell the difference between a human-made pizza and a robot-made one.

3 Read the sentence from the introduction [paragraphs 1-3] below:

She says, "We automate those repetitive tasks so that we can spend more money on higher quality ingredients."

Which paragraph BEST explains what "automate" is referring to?

- (A) Alex Garden co-founded Zume Pizza. Before that, Garden was also president of mobile game maker Zynga Studios and worked for Microsoft. Talking about Zume, Garden said, "We're going to eliminate boring, repetitive, dangerous jobs, and we're going to free up people to do things that are higher value."
- (B) In the kitchen, pizza dough travels down a conveyor belt to machines that add sauce. Then, they carefully slide the uncooked pies into an 800-degree oven. Soon, Zume will add robots that make the dough and add cheese and toppings. They will also take the pizzas out of the oven, slice them up and box them for delivery.
- (C) Ken Goldberg leads a machine lab at the University of California, Berkeley. Goldberg says robots can make simple foods such as pizza, burgers and sandwiches. However, they will not take over restaurants anytime soon. Robots still struggle with tasks that require fine motor skills, judgment and taste.
- (D) Charity Suzuki regularly uses the Zume mobile app to order pizza, and she is not bothered by the robot cooks. She says she cannot tell the difference between a robot- or human-made pizza.
- 4 Read the sentence below:

Robots still struggle with tasks that require fine motor skills, judgment and taste.

Which option is the best definition of "fine motor skills"?

- (A) the utilization of advanced technology
- (B) the ability to do complex and detailed tasks
- (C) the mastery of expert knowledge and opinion
- (D) the capacity to move for long periods of time

Answer Key

- 1 Which two sentences from the article contain central ideas of the article?
 - ^{1.} It is one of a growing number of food technology companies using robots and software to change the restaurant industry.
 - ^{2.} Soon, Zume will add robots that make the dough and add cheese and toppings.
 - ^{3.} Mountain View is in the Silicon Valley, a nickname for part of the San Francisco Bay Area that is home to many of the world's high-tech companies.
 - ^{4.} He says, "It's quicker, it's cheaper, it's more consistent and it's this really fun experience to share with people."
 - (A) 1 and 2
 - (B) 2 and 3
 - (C) 3 and 4
 - (D) 1 and 4
- 2 Which statement would be MOST important to include in a summary of the article?
 - (A) The company wants to get rid of boring and dangerous jobs so people can do more important things.
 - (B) Robots are able to put pizzas into an amazing 800-degree oven.
 - (C) Zume pizza has about 50 lucky human employees right now.
 - (D) Customers cannot tell the difference between a human-made pizza and a robot-made one.

3 Read the sentence from the introduction [paragraphs 1-3] below:

She says, "We automate those repetitive tasks so that we can spend more money on higher quality ingredients."

Which paragraph BEST explains what "automate" is referring to?

- (A) Alex Garden co-founded Zume Pizza. Before that, Garden was also president of mobile game maker Zynga Studios and worked for Microsoft. Talking about Zume, Garden said, "We're going to eliminate boring, repetitive, dangerous jobs, and we're going to free up people to do things that are higher value."
- (B) In the kitchen, pizza dough travels down a conveyor belt to machines that add sauce. Then, they carefully slide the uncooked pies into an 800-degree oven. Soon, Zume will add robots that make the dough and add cheese and toppings. They will also take the pizzas out of the oven, slice them up and box them for delivery.
- (C) Ken Goldberg leads a machine lab at the University of California, Berkeley. Goldberg says robots can make simple foods such as pizza, burgers and sandwiches. However, they will not take over restaurants anytime soon. Robots still struggle with tasks that require fine motor skills, judgment and taste.
- (D) Charity Suzuki regularly uses the Zume mobile app to order pizza, and she is not bothered by the robot cooks. She says she cannot tell the difference between a robot- or human-made pizza.
- 4 Read the sentence below:

Robots still struggle with tasks that require fine motor skills, judgment and taste.

Which option is the best definition of "fine motor skills"?

- (A) the utilization of advanced technology
- (B) the ability to do complex and detailed tasks
- (C) the mastery of expert knowledge and opinion
- (D) the capacity to move for long periods of time