202\_28 HSV Industry Solutions

<https://www.youtube.com/watch?v=HX6M4QunVmA>

The Robot Revolution – The New Way of Manufacturing 00:00 – 09:11

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**I Watch the video and, after the introduction, take notes on the following aspects.**

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| **1** 00.48-03:47 | **Robots and Cobots –** Take notes on |
|  | - the leading continents in the production of robots? |
| *Asia/Australia are by far the leading producers.* |
| - the way robots now know what to do? |
|  *Machine learning enables robots to learn by themselves**🡪 ”a millionfold improvement”**e.g. they can recognize objects now, they do dangerous things* |
| - how a cobot differs from a robot? |
| * *They work alongside employees, “with people”.*
* *This is safer than normal robots,*
* *The cooperation is more productive*
 |
| - the most efficient way of working? |
| * *Humans cooperating with machines (“human-machine groups”) are most efficient.*
* *They reduce human idle-time by 85%.*
 |
| **2** 03:48-04:44 | **The robot restaurant** |
|  | What do robots do there? |
| *They make pancakes, mix cocktails, cook, make and serve ice-cream.* |
| Why might they be useful? |
| *When the population gets older in Japan, fewer people can do the work.* |

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| **4** 04:45-0:11 | **China: Shenzhen and Pearl River Delta (Michael Zeng from *Rapoo*)** |
|  | Why are robotics important here? |
| * *Salaries have risen (more than doubled since 2008).*
* *Automation by robotics can reduce the workforce.*
 |
| How does M. Zeng happily describe the future? |
| *His company will be more competitive.* |
| What is said about the job situation? |
| * *people can still easily get jobs because China is growing very fast*
* *service sector (human) is growing fastest*
* *workers do not resist because they have no choice*
* *automation will progress fast towards full automation*
* *one logistics company has almost no humans left (also drone deliveries)*
 |
| 5 08:36-09:11 | What outlook on the “robotic future” is given at the end of the video? |
|  | * *It is a moment of choice/opportunity for both society and individuals.*
* *The next ten years could be the best or one of the worst times.*
* *“We have more power than ever before.”*
 |

**Please add a personal comment**.

*Individual answers*