



Answers

1. **(00:00-00:43)** According to the interviewer and based on their previous interview, what is the main driving force behind Elon Musk doing what he does?
The desire to build a future that is worth getting excited about - a future that doesn't 'suck'.
2. **(00:43-01:23)** What does Elon Musk claim is 'not great', and what should life not be about?
He claims that it is not good that people are sad and pessimistic about the future. He says that life should not be about solving one miserable problem after another.

Tesla's Self-Driving Cars and "Optimus" Humanoid Robot

3. **(20:03-02:28)** What does the interviewer say about companies developing humanoid robots?
He says that many companies have tried to rollout humanoid robots, but they haven't 'cracked it', meaning that they haven't succeeded. Therefore, there has not yet been a rollout of robots in people's homes.
4. **(20:28-20:37)** What does the interviewer ask Elon Musk here?
He asks whether there was something that happened in the development of full self-driving technology that gave Elon Musk the confidence to pursue the development of humanoid robots.
5. **(20:37-20:58)** According to Elon Musk, what is the link between self-driving cars and humanoid robots?
He says that self-driving cars are essentially robots on 4 wheels, and once you have mastered AI in self-driving cars you can then apply that to robots on 2 legs.
6. **(20:58-21:50)** What are the two things currently missing for the successful global rollout of humanoid robots, and how confident do you think that Elon Musk is that Tesla can overcome these issues?
 - **Enough intelligence for the robot to navigate the real world and do useful things without being explicitly instructed.**
 - **Scaling up manufacturing.**

Elon Musk claims that these 2 areas are something that Tesla is very good at. He also claims that this invention is going to be bigger than the car.
7. **(21:50-22:17)** What comparison does the interviewer make here between humanoid robots and self-driving cars?
He says that humanoid robots are an 'easier problem' than self-driving cars, because instead of a car going at 60 miles per hour, a humanoid robot is only going at walking speed, so there are not lives at stake if there is an accident.



Answers

8. (22:17-23:14) What are 5 potential tasks that a humanoid robot could do around the home?
- Tidy up
 - Make dinner
 - Mow the lawn
 - Take a cup of tea to grandma and show her family pictures
 - Play catch with your kids
9. (23:14-23:51) What 2 suggestions does Elon Musk make in order to avoid a 'distopian' situation with humanoid robots?
- To have a localised chip on the robot which could not be updated remotely. Therefore, if someone simply said 'stop, stop, stop' then the robot would stop.
 - To have a regulatory agency for AI

Space X' "Starship" and Travelling to Mars

10. (36:55-37:04) What hypothetical scenario does the interviewer use in order to introduce the topic of space and rockets?
- He makes a joke by referencing a hypothetical scenario whereby AI 'takes down' earth and we need a plan B. The verb 'take down' normally means to dismantle something. Here it could mean that AI destroys the earth or takes over the earth, and humans need to move to somewhere in space.
11. (37:04-38:33) How will Space X' Starship "change the rules of the game" in terms of space travel?
- Once starship has been used, it will be possible to recover the entire rocket without having to replace any of the parts. Starship will not only be reusable, but it will be rapidly reusable to the point at which it could be immediately re-flown.
12. (39:33-39:04) According to what the interviewer has heard, what is the main goal of Space X' Starship?
- The goal of Starship is to take 100+ people to Mars at one time plus all the things that they need.
13. (39:06-39:45) What are Elon Musk's exact words during these 39 seconds?
- [See page 5 for a mini transcript and accent guide]



Answer to Question 13 and Guide to Some Features of US and South African Accents

Transcript of the video (39:06-39:45)

Key - Some features of a South African English accent which can be seen in the mini-transcript:

Grey Text 'r' sounds before consonants or at the end of the sentence are not pronounced
 South African English is a 'non-rhotic' accent, which means that 'r' sounds are only pronounced before vowels. This is not the case with US accents, where 'r' is pronounced in all positions.

Key - Some features of a US English accent which can be seen in the mini-transcript:

Green text Short 'o' sounds slightly lengthened to an 'aa' sound
 Words such as 'cot' and 'cost' are lengthened slightly to resemble a sound similar to 'father'. This is heard in some accents in the USA, especially in the south, and is also heard in California. This does not exist in South African English.

Key - Some features of both South African and US English accents which can be seen in the mini-transcript:

Red text 't' flapping (or 'tapping') to sound more like a 'd' sound
 This occurs in many US accents, where the 't' sound is just tapped against the alveolar ridge at the front of the mouth when it is between two vowel sounds. This makes it sound more like a 'd'. This happens infrequently in South African English as well, and Elon Musk uses it fairly infrequently below.

Small text 'filler' words such as 'are / to / a / can / of / for / from' are reduced to very quick sounds which are hard to hear. Each of these words contains some form of 'schwa' sound, which is a kind of lazy 'uh' sound. This occurs in all English accents, including US accents. This lazy 'uh' sound is in fact the most common vowel sound in both South African and American English. It is used also in formal and professional settings, and it is in fact essential to maintain the natural rhythm of the English language. Elon Musk uses this a lot in the text below, and in the cases where he doesn't use it, it is mainly because he sometimes pauses when he says a filler word.

Grey text The real transcript of the video

en just te put the caast thing into perspective... The expected caast v starship putting 100 tons into
 And just to put the cost thing into perspective... The expected cost of starship putting 100 tons into

orbit is significantly less than what it would v caast, or what it did caast to put our tiny Falcon 1
 orbit is significantly less than what it would have cost, or what it did cost to put our tiny Falcon 1

rocket into orbit. Just as the caast of flying a seven forty seven around the world is less than the caast v
 rocket into orbit. Just as the cost of flying a seven forty seven around the world is less than the cost of

e small airplane. You know, a small airplane thet wz thrown away. So.. it's really predy mind-boggling
 a small airplane. You know, a small airplane that was thrown away. So.. it's really pretty mind-boggling

that the giant thing caasts less, way less then the small thing.
 that the giant thing costs less, way less than the small thing.