

1

00:00:00,000 --> 00:00:06,000

The usual wager?

2

00:00:06,000 --> 00:00:08,000

Sure, the loser cleans the shop, right?

3

00:00:08,000 --> 00:00:09,000

Yeah.

4

00:00:09,000 --> 00:00:10,000

Okay.

5

00:00:10,000 --> 00:00:11,000

Count it in.

6

00:00:11,000 --> 00:00:13,000

I'm ready.

7

00:00:13,000 --> 00:00:16,000

Three, two, one.

8

00:00:16,000 --> 00:00:18,000

Hey, wait a second.

9

00:00:18,000 --> 00:00:19,000

I'm ready.

10

00:00:19,000 --> 00:00:20,000

I'm ready.

11

00:00:20,000 --> 00:00:21,000

I'm ready.

12

00:00:21,000 --> 00:00:22,000

I'm ready.

13

00:00:22,000 --> 00:00:23,000

I'm ready.

14

00:00:23,000 --> 00:00:24,000

I'm ready.

15

00:00:24,000 --> 00:00:25,000

I'm ready.

16

00:00:25,000 --> 00:00:26,000

I'm ready.

17

00:00:26,000 --> 00:00:27,000

I'm ready.

18

00:00:27,000 --> 00:00:28,000

I'm ready.

19

00:00:28,000 --> 00:00:29,000

I'm ready.

20

00:00:30,000 --> 00:00:32,000

There we go.

21

00:00:32,000 --> 00:00:34,000

Ah, shh.

22

00:00:34,000 --> 00:00:35,000

Hello.

23

00:00:35,000 --> 00:00:37,000

Hi, Mom.

24

00:00:37,000 --> 00:00:39,000

No, no, not you.

25

00:00:39,000 --> 00:00:40,000

Not you.

26

00:00:43,000 --> 00:00:44,000

No, it...

27

00:00:44,000 --> 00:00:47,000

Hold on, Mom, it's not really the best time for me to talk.

28

00:00:53,000 --> 00:00:54,000

Saturday?

29

00:00:54,000 --> 00:00:55,000

Hold on, Mom, hold on.

30

00:00:55,000 --> 00:00:56,000

I gotta go.

31

00:00:56,000 --> 00:00:57,000

I gotta go.

32

00:00:57,000 --> 00:00:58,000

Okay, I'll talk to you later.

33

00:01:00,000 --> 00:01:01,000

Ah!

34

00:01:03,000 --> 00:01:04,000

I lost.

35

00:01:04,000 --> 00:01:06,000

You're looking a little distracted there.

36

00:01:06,000 --> 00:01:08,000

Yeah, but I did pretty good in reverse.

37

00:01:10,000 --> 00:01:11,000

All right.

38

00:01:29,000 --> 00:01:31,000

All right, sir. Time to get your racing gloves on.

39

00:01:31,000 --> 00:01:34,000

We have an entire episode that puts the word dangerous

40

00:01:34,000 --> 00:01:36,000

into the phrase dangerous driving.

41

00:01:36,000 --> 00:01:37,000

Like what?

42

00:01:37,000 --> 00:01:40,000

Well, we've got a Hollywood car chase story to tackle

43

00:01:40,000 --> 00:01:42,000

that driving at high speed through traffic

44

00:01:42,000 --> 00:01:45,000

evading your enemies in reverse is easy.

45

00:01:45,000 --> 00:01:48,000

But first up, we have a story all about the dangers

46

00:01:48,000 --> 00:01:50,000

of driving while talking on your cell phone.

47

00:01:50,000 --> 00:01:52,000

Oh, that's a good one.

48

00:01:52,000 --> 00:01:54,000

I'm gonna go get my phone.

49

00:01:54,000 --> 00:01:56,000

I'm gonna go get my phone.

50

00:01:56,000 --> 00:01:58,000

I'm gonna get my phone while talking on your cell phone.

51

00:01:59,000 --> 00:02:00,000

Well, there's law against that,

52

00:02:00,000 --> 00:02:02,000

at least as far as holding it in your hand.

53

00:02:02,000 --> 00:02:04,000

Exactly, but what is the solution

54

00:02:04,000 --> 00:02:06,000

for someone who wants to talk on their phone?

55

00:02:06,000 --> 00:02:07,000

Hands-free?

56

00:02:07,000 --> 00:02:08,000

Hello?

57

00:02:08,000 --> 00:02:10,000

Yep, but there's a myth

58

00:02:10,000 --> 00:02:12,000

that there is no improvement in safety

59

00:02:12,000 --> 00:02:15,000

talking hands-free versus holding on to your phone,

60

00:02:15,000 --> 00:02:18,000

that they both distract you just as much.

61

00:02:18,000 --> 00:02:19,000

And I think we should test that.

62

00:02:19,000 --> 00:02:20,000

Absolutely.

63

00:02:22,000 --> 00:02:24,000

Talking on a handheld phone

64

00:02:24,000 --> 00:02:28,000

leaves a driver both mentally and physically compromised.

65

00:02:28,000 --> 00:02:32,000

Going hands-free does eliminate half the problem,

66

00:02:32,000 --> 00:02:34,000

but with the other half still there,

67

00:02:34,000 --> 00:02:36,000

some say that it's just as dangerous.

68

00:02:43,000 --> 00:02:45,000

To find out, the Mythbusters crew

69

00:02:45,000 --> 00:02:47,000

have constructed a classified course

70

00:02:47,000 --> 00:02:50,000

designed by drive expert Dave Storten.

71

00:02:50,000 --> 00:02:54,000

So the first section here is a slalom,

72

00:02:54,000 --> 00:02:57,000

so that's gonna test their steering ability

73

00:02:57,000 --> 00:02:58,000

while talking on the phone.

74

00:02:58,000 --> 00:03:02,000

Right now, Adam and Jamie are being deliberately kept in the dark.

75

00:03:02,000 --> 00:03:03,000

Coming out of the slalom,

76

00:03:03,000 --> 00:03:05,000

they'll immediately have to get on the brakes

77

00:03:05,000 --> 00:03:09,000

for our low-speed exercise called the offset lane.

78

00:03:09,000 --> 00:03:11,000

Because any pre-existing knowledge of the route

79

00:03:11,000 --> 00:03:13,000

could discredit their data.

80

00:03:13,000 --> 00:03:18,000

Once through that, we head over to what's called a T-box.

81

00:03:18,000 --> 00:03:22,000

Instead, all they know is that they must stick to the speed limits

82

00:03:22,000 --> 00:03:27,000

and not clip any cones if they're to achieve a perfect score.

83

00:03:27,000 --> 00:03:28,000

Right.

84

00:03:28,000 --> 00:03:30,000

If you bolt the two together,

85

00:03:30,000 --> 00:03:32,000

maybe some sticky tape in the middle,

86

00:03:32,000 --> 00:03:33,000

and that should totally...

87

00:03:33,000 --> 00:03:34,000

Okay, hold on, hold on, hold on.

88

00:03:34,000 --> 00:03:35,000

I got a thing to do.

89

00:03:35,000 --> 00:03:36,000

Okay, wait right there.

90

00:03:36,000 --> 00:03:38,000

Okay, so while we know that driving in a car

91

00:03:38,000 --> 00:03:40,000

while holding onto a cell phone and talking is bad,

92

00:03:40,000 --> 00:03:41,000

sorry that wasn't for you,

93

00:03:41,000 --> 00:03:45,000

the myth is that driving hands-free is just as bad,

94

00:03:45,000 --> 00:03:47,000

that there is no difference between hands-full

95

00:03:47,000 --> 00:03:48,000

and hands-free.

96

00:03:48,000 --> 00:03:51,000

And we are just about to test it on the course behind me.

97

00:03:51,000 --> 00:03:52,000

I can see it from a distance,

98

00:03:52,000 --> 00:03:54,000

but that's as close as I'm going to get

99

00:03:54,000 --> 00:03:58,000

because my ignorance of this course is intrinsic to our test.

100

00:04:00,000 --> 00:04:03,000

Like Adam, Jamie's also going that extra mile

101

00:04:03,000 --> 00:04:05,000

to make sure their science is sound.

102

00:04:05,000 --> 00:04:07,000

Adam's going to run this test twice.

103

00:04:07,000 --> 00:04:09,000

First with the phone held in his hand,

104

00:04:09,000 --> 00:04:11,000

and then secondly, hands-free.

105

00:04:11,000 --> 00:04:13,000

Then I'm also going to run the test twice,

106

00:04:13,000 --> 00:04:16,000

but I'm going to do it in the inverse order.

107

00:04:16,000 --> 00:04:20,000

The idea here is that we're going to be able to remove any bias

108

00:04:20,000 --> 00:04:24,000

as far as learning and getting better every time we do the test.

109

00:04:24,000 --> 00:04:25,000

Indeed.

110

00:04:25,000 --> 00:04:27,000

And while Adam warms up in the test car...

111

00:04:27,000 --> 00:04:29,000

Breaker, breaker, we got a 5x5 and an MPV.

112

00:04:29,000 --> 00:04:30,000

I'll take care of it.

113

00:04:32,000 --> 00:04:34,000

Jamie sits down in mission control.

114

00:04:34,000 --> 00:04:36,000

All right, I've got my questions.

115

00:04:36,000 --> 00:04:37,000

I've got my phone.

116

00:04:37,000 --> 00:04:41,000

We'll see what we can do to mess with Adam's world.

117

00:04:44,000 --> 00:04:45,000

Hello, sir.

118

00:04:45,000 --> 00:04:46,000

Hello.

119

00:04:46,000 --> 00:04:49,000

With Dave riding shotgun to mark Adam's moves,

120

00:04:49,000 --> 00:04:51,000

it's time to hold the phone.

121

00:04:54,000 --> 00:04:55,000

Hello.

122

00:04:55,000 --> 00:04:56,000

Hello, Adam.

123

00:04:56,000 --> 00:05:00,000

I've got my questions ready for you, and we're good to go.

124

00:05:00,000 --> 00:05:03,000

Three, two, one, here we go.

125

00:05:05,000 --> 00:05:08,000

Okay, so if you could compete with the Olympics,

126

00:05:08,000 --> 00:05:10,000

what event would you want to be in?

127

00:05:10,000 --> 00:05:13,000

If I could compete with the Olympics, I would...

128

00:05:13,000 --> 00:05:14,000

Hold on a second.

129

00:05:14,000 --> 00:05:15,000

There we go.

130

00:05:15,000 --> 00:05:16,000

Hold on, sorry.

131

00:05:16,000 --> 00:05:18,000

I think I would do the lose,

132

00:05:18,000 --> 00:05:24,000

because it requires, I think, the least amount of physical acuity.

133

00:05:24,000 --> 00:05:26,000

Okay, that's great.

134

00:05:26,000 --> 00:05:29,000

Now, I need you to add the first two given numbers

135

00:05:29,000 --> 00:05:32,000

and then add the next number to the last number given.

136

00:05:32,000 --> 00:05:33,000

Okay.

137

00:05:33,000 --> 00:05:34,000

Eight and seven.

138

00:05:34,000 --> 00:05:37,000

Eight and seven equals 15.

139

00:05:37,000 --> 00:05:39,000

Okay, three.

140

00:05:40,000 --> 00:05:42,000

Uh, ten.

141

00:05:43,000 --> 00:05:44,000

Excellent.

142

00:05:44,000 --> 00:05:46,000

Okay, for the next test, I'm going to read you a list of words

143

00:05:46,000 --> 00:05:49,000

and ask you to repeat them in reverse order.

144

00:05:49,000 --> 00:05:50,000

Hold on a second.

145

00:05:50,000 --> 00:05:52,000

Now, at this point, you might be wondering about the complexity

146

00:05:52,000 --> 00:05:55,000

of the questions we are asking each other while driving.

147

00:05:55,000 --> 00:05:57,000

Flamethrower, fire hydrant, water.

148

00:05:57,000 --> 00:06:00,000

Why aren't we just reading war and peace over the phone?

149

00:06:00,000 --> 00:06:02,000

Water, fire hydrant, flamethrower.

150

00:06:02,000 --> 00:06:04,000

Well, each of our questions falls into a category

151

00:06:04,000 --> 00:06:07,000

that activates the cognitive portions of the brain.

152

00:06:07,000 --> 00:06:10,000

General knowledge, which country has the longest coastline?

153

00:06:10,000 --> 00:06:14,000

Uh, the longest coastline of any country, China,

154

00:06:14,000 --> 00:06:18,000

all require the driver to use the part of their brain to listen.

155

00:06:18,000 --> 00:06:22,000

At the same time, as they're trying to use another part of their brain to drive.

156

00:06:22,000 --> 00:06:26,000

Adam isn't being judged on how well he answers the questions.

157

00:06:26,000 --> 00:06:27,000

Add one and seven.

158

00:06:27,000 --> 00:06:29,000

Uh, hold on.

159

00:06:29,000 --> 00:06:31,000

This is ten.

160

00:06:31,000 --> 00:06:33,000

It's how well he's driving.

161

00:06:33,000 --> 00:06:35,000

That's the only metric.

162

00:06:36,000 --> 00:06:38,000

Whoa, whoa, whoa!

163

00:06:38,000 --> 00:06:41,000

And the answer to that is not very well.

164

00:06:41,000 --> 00:06:43,000

Um, hold on.

165

00:06:43,000 --> 00:06:44,000

Sorry.

166

00:06:44,000 --> 00:06:46,000

The combination of one hand on the wheel

167

00:06:46,000 --> 00:06:49,000

and a brain that's multi-tasking into meltdown

168

00:06:49,000 --> 00:06:51,000

means that by the end of the test,

169

00:06:51,000 --> 00:06:54,000

Adam's flunked with flying colors.

170

00:06:54,000 --> 00:06:56,000

Jamie, I'm done.

171

00:06:56,000 --> 00:06:58,000

That was awful.

172

00:06:58,000 --> 00:07:03,000

Well, uh, let's reset and see whether you're still a menace on the next one.

173

00:07:03,000 --> 00:07:05,000

All right.

174

00:07:05,000 --> 00:07:07,000

Okay.

175

00:07:11,000 --> 00:07:14,000

Well, I've completed my first test,

176

00:07:14,000 --> 00:07:18,000

and talking on the phone was absolutely awful.

177

00:07:18,000 --> 00:07:20,000

And then the car stopped working.

178

00:07:20,000 --> 00:07:24,000

So we are actually going to transfer all of the cameras and microphones

179

00:07:24,000 --> 00:07:27,000

from inside this car to one of our production vehicles,

180

00:07:27,000 --> 00:07:30,000

and I'm going to run the test a second time, hands-free.

181

00:07:30,000 --> 00:07:32,000

I mean, we still consider my first test valid.

182

00:07:32,000 --> 00:07:34,000

We just have to do the second one in a different car.

183

00:07:34,000 --> 00:07:37,000

So while the team pushes on,

184

00:07:37,000 --> 00:07:39,000

what else is on the docket?

185

00:07:39,000 --> 00:07:41,000

So driving in reverse.

186

00:07:41,000 --> 00:07:42,000

Paint me a picture.

187

00:07:42,000 --> 00:07:45,000

Well, look, our hero, let's say, is driving down a one-way street.

188

00:07:45,000 --> 00:07:49,000

He thinks he's home free, but blocking his path is a villain in a car.

189

00:07:49,000 --> 00:07:53,000

He's got nowhere to go, so using the only avenue open to him,

190

00:07:53,000 --> 00:07:56,000

the hero throws the car into reverse and backs up,

191

00:07:56,000 --> 00:07:59,000

bobbing and weaving through traffic at high speed

192

00:07:59,000 --> 00:08:02,000

to eventually evade his chase.

193

00:08:02,000 --> 00:08:04,000

And you want to know if this is possible?

194

00:08:04,000 --> 00:08:05,000

I totally do.

195

00:08:05,000 --> 00:08:07,000

We've been trained to drive in a lot of different ways over the years,

196

00:08:07,000 --> 00:08:09,000

but backwards isn't one of them,

197

00:08:09,000 --> 00:08:12,000

and it involves a lot of different skills,

198

00:08:12,000 --> 00:08:14,000

not only driving ability and spatial awareness,

199

00:08:14,000 --> 00:08:16,000

but also really proprioception.

200

00:08:16,000 --> 00:08:18,000

Yeah, yeah, let's get to driving.

201

00:08:18,000 --> 00:08:19,000

Okay.

202

00:08:19,000 --> 00:08:27,000

MUSIC

203

00:08:27,000 --> 00:08:30,000

Beautiful day.

204

00:08:30,000 --> 00:08:32,000

Wide open, empty runway.

205

00:08:32,000 --> 00:08:35,000

The conditions are perfect.

206

00:08:35,000 --> 00:08:37,000

Oh, wait, we need a car.

207

00:08:37,000 --> 00:08:46,000

MUSIC

208

00:08:46,000 --> 00:08:48,000

You ordered a car?

209

00:08:48,000 --> 00:08:51,000

Indeed I did, sir. Perfect timing.

210

00:08:51,000 --> 00:08:55,000

MUSIC

211

00:08:55,000 --> 00:08:57,000

Now, the movies are packed with people who can drive well,

212

00:08:57,000 --> 00:09:01,000

but they would lead you to believe that you could drive forward or reverse

213

00:09:01,000 --> 00:09:03,000

however you choose.

214

00:09:03,000 --> 00:09:06,000

We're constantly seeing our movie heroes racing away from the bad guys,

215

00:09:06,000 --> 00:09:09,000

avoiding obstacles and driving all over the place

216

00:09:09,000 --> 00:09:13,000

with the rear end of the car facing the direction that they are actually going.

217

00:09:13,000 --> 00:09:15,000

MUSIC

218

00:09:15,000 --> 00:09:18,000

But before trying out any twists or turns...

219

00:09:18,000 --> 00:09:21,000

And that's a quarter mile.

220

00:09:21,000 --> 00:09:26,000

The guys first want to know if cars can even reverse Hollywood fast in real life,

221

00:09:26,000 --> 00:09:29,000

and for that, they're hitting this straight away.

222

00:09:29,000 --> 00:09:32,000

We've set up a course that's measured,

223

00:09:32,000 --> 00:09:34,000

and we're going to test out these cars,

224

00:09:34,000 --> 00:09:36,000

see how fast they go in forward,

225

00:09:36,000 --> 00:09:39,000

and compare that to how fast they go in reverse.

226

00:09:39,000 --> 00:09:41,000

MUSIC

227

00:09:41,000 --> 00:09:43,000

All right, Mr. Hanuman, are you ready?

228

00:09:43,000 --> 00:09:45,000

I'm good to go.

229

00:09:45,000 --> 00:09:50,000

All right, commence. Quarter mile test in three, two, one, go.

230

00:09:50,000 --> 00:09:54,000

MUSIC

231

00:09:54,000 --> 00:09:56,000

Here it comes.

232

00:09:56,000 --> 00:09:59,000

80 miles per hour.

233

00:09:59,000 --> 00:10:02,000

MUSIC

234

00:10:02,000 --> 00:10:04,000

It's a good start for their converted cab,

235

00:10:04,000 --> 00:10:08,000

but how will that speed compare when it's back to front?

236

00:10:08,000 --> 00:10:11,000

Most cars you're ever going to run into have only one reverse gear,

237

00:10:11,000 --> 00:10:13,000

which means that the top speed of your car

238

00:10:13,000 --> 00:10:16,000

in reverse is ultimately limited by the reverse gearing

239

00:10:16,000 --> 00:10:19,000

and the speed at which the engine is turning over.

240

00:10:19,000 --> 00:10:23,000

Now, will our car be able to go as fast as they seem to go in the movies?

241

00:10:23,000 --> 00:10:27,000

That is just what we're about to find out.

242

00:10:27,000 --> 00:10:32,000

Okay, commence backwards, quarter mile in three, two, one, go.

243

00:10:32,000 --> 00:10:34,000

MUSIC

244

00:10:34,000 --> 00:10:39,000

Jamie's off, but from the get-go, it's clear that he's less fast and furious.

245

00:10:39,000 --> 00:10:42,000

MUSIC

246

00:10:42,000 --> 00:10:46,000

And more driving Miss Daisy.

247

00:10:46,000 --> 00:10:50,000

But that's because he's using this run to get his eye in.

248

00:10:50,000 --> 00:10:55,000

31 miles per hour. I think he can do better. I think he's got more.

249

00:10:55,000 --> 00:10:59,000

Yep, it's test two, where the rubber will meet the road.

250

00:10:59,000 --> 00:11:02,000

Okay, Adam, I'm in place and ready to go in reverse.

251

00:11:02,000 --> 00:11:06,000

As Jamie this time plans to put the pedal to the metal.

252

00:11:06,000 --> 00:11:09,000

Mr. Heineman in three, two, one, go.

253

00:11:09,000 --> 00:11:16,000

MUSIC

254

00:11:16,000 --> 00:11:21,000

49-50, 52, 53.

255

00:11:21,000 --> 00:11:26,000

MUSIC

256

00:11:26,000 --> 00:11:28,000

54 miles per hour.

257

00:11:28,000 --> 00:11:30,000

Now that's more like it.

258

00:11:30,000 --> 00:11:34,000

Reaching freeway speeds is more than a match for a Hollywood hero.

259

00:11:34,000 --> 00:11:37,000

But it's not all good news.

260

00:11:37,000 --> 00:11:40,000

The trick with driving at a high speed in reverse was to not do very much.

261

00:11:40,000 --> 00:11:44,000

Just kind of hold still and try and keep the car in a straight line.

262

00:11:44,000 --> 00:11:47,000

But unfortunately, we're not going to have that option now

263

00:11:47,000 --> 00:11:50,000

because now we've got to drive through a slalom in reverse.

264

00:11:50,000 --> 00:11:54,000

And that's all about steering. That's going to be really hard.

265

00:11:54,000 --> 00:11:56,000

MUSIC

266

00:11:56,000 --> 00:11:58,000

Still to come.

267

00:11:58,000 --> 00:12:01,000

Back up Bologna gets a movie makeover.

268

00:12:01,000 --> 00:12:03,000

Yeah!

269

00:12:03,000 --> 00:12:06,000

And hands free goes high tech.

270

00:12:06,000 --> 00:12:08,000

Aaaaaah!

271

00:12:08,000 --> 00:12:10,000

Cough, cough, cough.

272

00:12:10,000 --> 00:12:16,000

MUSIC

273

00:12:16,000 --> 00:12:21,000

Is driving at speed in reverse as easy as the movies make out?

274

00:12:21,000 --> 00:12:25,000

Well, not if Adam's straight line test...

275

00:12:25,000 --> 00:12:27,000

Coming up fast.

276

00:12:27,000 --> 00:12:29,000

...is anything to go by.

277

00:12:29,000 --> 00:12:31,000

Cough!

278

00:12:31,000 --> 00:12:34,000

MUSIC

279

00:12:34,000 --> 00:12:38,000

There are a couple of reasons that cars are difficult to drive at high speed in reverse.

280

00:12:38,000 --> 00:12:41,000

Yeah, you started to lose it at about 50.

281

00:12:41,000 --> 00:12:45,000

And the first is that the steering is not self-centering.

282

00:12:45,000 --> 00:12:49,000

If you let go of the wheel of a car going forward for just a second,

283

00:12:49,000 --> 00:12:52,000

it'll tend to self-correct because of the offset of the wheels.

284

00:12:52,000 --> 00:12:55,000

If you're going in reverse, it does the opposite.

285

00:12:55,000 --> 00:12:58,000

If you let go of that wheel, they're going to go hard to the side.

286

00:12:58,000 --> 00:13:01,000

And you're going to do a 180, and that's dangerous.

287

00:13:01,000 --> 00:13:04,000

And correct a little too much, you're going to lose it.

288

00:13:04,000 --> 00:13:07,000

The other thing is all about perspective.

289

00:13:07,000 --> 00:13:10,000

When you're going forwards with your head in a line with the steering wheel,

290

00:13:10,000 --> 00:13:12,000

driving is really intuitive.

291

00:13:12,000 --> 00:13:15,000

But in reverse, you're either looking into the mirror over your shoulder,

292

00:13:15,000 --> 00:13:18,000

meaning your brain's having to make complex decisions from a viewpoint

293

00:13:18,000 --> 00:13:20,000

that it's just not used to.

294

00:13:20,000 --> 00:13:22,000

Cough!

295

00:13:22,000 --> 00:13:27,000

And so when things go wrong, you're going to flip the car or something back.

296

00:13:27,000 --> 00:13:33,000

Given their struggles on the straightaway, today's test looks terrifying.

297

00:13:33,000 --> 00:13:36,000

This is what we call the diving in at the deep end test.

298

00:13:36,000 --> 00:13:40,000

We've got a course that's full of the kind of challenges a Hollywood hero has to face,

299

00:13:40,000 --> 00:13:45,000

and we're going to see if we can reverse through it at high speeds without crashing.

300

00:13:45,000 --> 00:13:48,000

This is why we have insurance.

301

00:13:48,000 --> 00:13:52,000

It's a course that a movie maestro would finish in a flash.

302

00:13:52,000 --> 00:13:55,000

But how will the mythbusters manage?

303

00:13:58,000 --> 00:14:05,000

All right, first run in three, two, one, go.

304

00:14:05,000 --> 00:14:07,000

Adam's off.

305

00:14:07,000 --> 00:14:11,000

And from the outset, he's ignoring the mirrors.

306

00:14:11,000 --> 00:14:13,000

Whoa!

307

00:14:13,000 --> 00:14:15,000

Oh, there goes a cone.

308

00:14:15,000 --> 00:14:18,000

And going with the over-the-shoulder technique.

309

00:14:18,000 --> 00:14:20,000

Ah!

310

00:14:20,000 --> 00:14:22,000

Ah!

311

00:14:22,000 --> 00:14:26,000

But it's hardly paying dividends.

312

00:14:26,000 --> 00:14:30,000

Because not only does poor steering cripple his cone count...

313

00:14:30,000 --> 00:14:32,000

Ah!

314

00:14:32,000 --> 00:14:35,000

Ah!

315

00:14:35,000 --> 00:14:39,000

But his slow speed means his time is terrible.

316

00:14:39,000 --> 00:14:41,000

Ha ha ha!

317

00:14:41,000 --> 00:14:42,000

How did I do?

318

00:14:42,000 --> 00:14:44,000

One minute, seven seconds.

319

00:14:44,000 --> 00:14:46,000

One minute, seven seconds?

320

00:14:46,000 --> 00:14:48,000

I'll tell you what that does.

321

00:14:48,000 --> 00:14:51,000

It wreaks havoc on my neck.

322

00:14:51,000 --> 00:14:57,000

Well, I had a couple of screw-ups on that one.

323

00:14:57,000 --> 00:15:03,000

It's very hard to gauge how hard you need to hit a turn in reverse,

324

00:15:03,000 --> 00:15:08,000

because all of your metrics for reaction in terms of how the car moves are way off kilter.

325

00:15:08,000 --> 00:15:11,000

It's a far more sensitive device in reverse.

326

00:15:13,000 --> 00:15:18,000

Indeed, but can Jamie master the method and reverse this myth's fortunes?

327

00:15:19,000 --> 00:15:21,000

All right, cowboy, here we go.

328

00:15:21,000 --> 00:15:24,000

And three, two, one, go!

329

00:15:26,000 --> 00:15:28,000

I love that this is our job.

330

00:15:28,000 --> 00:15:33,000

Unlike Adam, Jamie's using the mirrors and the over-the-shoulder system,

331

00:15:33,000 --> 00:15:36,000

but it's not a winning combination.

332

00:15:36,000 --> 00:15:39,000

Ha ha ha ha ha!

333

00:15:39,000 --> 00:15:43,000

Because his crash course is even worse than Adam's.

334

00:15:43,000 --> 00:15:50,000

But eventually he crawls to the finish line in a sluggish 72 seconds.

335

00:15:50,000 --> 00:15:53,000

Ha ha ha ha ha!

336

00:15:53,000 --> 00:15:55,000

Ah!

337

00:15:55,000 --> 00:15:59,000

Which is not good news for the myth.

338

00:15:59,000 --> 00:16:00,000

Ha ha ha!

339

00:16:00,000 --> 00:16:01,000

Okay, you win.

340

00:16:01,000 --> 00:16:02,000

Ha ha ha ha ha!

341

00:16:02,000 --> 00:16:04,000

But all is not lost.

342

00:16:04,000 --> 00:16:07,000

Look, there is no doubt that this test was hard.

343

00:16:07,000 --> 00:16:08,000

Ah!

344

00:16:08,000 --> 00:16:12,000

The course was difficult, and we are at the novice end of the reverse driving sport.

345

00:16:12,000 --> 00:16:16,000

We have the reverse driving spectrum, but with some expert training,

346

00:16:16,000 --> 00:16:19,000

will we be able to bring this myth back from the brink?

347

00:16:19,000 --> 00:16:21,000

That's what's next.

348

00:16:21,000 --> 00:16:28,000

Actually, not quite, because next the guys are jumping ship back to Alameda.

349

00:16:28,000 --> 00:16:33,000

To find out if Hans free is as distracting as holding the phone,

350

00:16:33,000 --> 00:16:34,000

Ah, hello, Jamie.

351

00:16:34,000 --> 00:16:37,000

Adam started with a Hans full control.

352

00:16:37,000 --> 00:16:39,000

Whoa, whoa, whoa!

353

00:16:39,000 --> 00:16:43,000

That went so badly, his car refused to continue.

354

00:16:43,000 --> 00:16:44,000

Okay.

355

00:16:46,000 --> 00:16:48,000

So it's out with the old,

356

00:16:48,000 --> 00:16:50,000

Alright Dave, let's do it.

357

00:16:50,000 --> 00:16:51,000

and in with the new.

358

00:16:51,000 --> 00:16:55,000

But will going Hans free really be just as bad?

359

00:16:55,000 --> 00:16:57,000

Here we go.

360

00:16:57,000 --> 00:16:59,000

Why hello, this is Adam.

361

00:16:59,000 --> 00:17:01,000

Well hello there Adam.

362

00:17:01,000 --> 00:17:02,000

Should I start driving?

363

00:17:02,000 --> 00:17:03,000

Yes, go ahead.

364

00:17:03,000 --> 00:17:08,000

Like last time, Adam must complete the course while answering questions

365

00:17:08,000 --> 00:17:09,000

both easy.

366

00:17:09,000 --> 00:17:12,000

Okay, on which continent is the Sahara Desert?

367

00:17:12,000 --> 00:17:15,000

The Sahara Desert is on the African continent.

368

00:17:15,000 --> 00:17:17,000

And hard.

369

00:17:17,000 --> 00:17:21,000

If Buster walks halfway around a circle and then turns around and walks halfway back,

370

00:17:21,000 --> 00:17:23,000

is he now back where he started?

371

00:17:23,000 --> 00:17:25,000

Yes, he is.

372

00:17:25,000 --> 00:17:27,000

No, he's halfway back.

373

00:17:27,000 --> 00:17:30,000

Ah, okay.

374

00:17:30,000 --> 00:17:35,000

But despite the obvious burden on his brain, his driving has got better.

375

00:17:35,000 --> 00:17:40,000

And although a clipped cone, sees him marked down.

376

00:17:40,000 --> 00:17:44,000

Sorry, I just hit something.

377

00:17:44,000 --> 00:17:49,000

His final score has improved, but was it due to the phone?

378

00:17:49,000 --> 00:17:55,000

Well, I've completed my Hans free run of our driving course and I did it a lot better.

379

00:17:55,000 --> 00:18:02,000

But here's the thing, I found taking the questions from Jamie just as distracting as I did the first time.

380

00:18:02,000 --> 00:18:09,000

I feel like my better performance on the second test could be chalked up to just understanding the course a little bit better.

381

00:18:09,000 --> 00:18:13,000

But that's why Jamie's gonna start Hans free and then go to Hans full.

382

00:18:13,000 --> 00:18:18,000

If that is an effect, we should cancel it out by changing the order that we do the test in.

383

00:18:18,000 --> 00:18:20,000

That's theory anyway.

384

00:18:23,000 --> 00:18:25,000

Want to see what you can do with it?

385

00:18:25,000 --> 00:18:28,000

I'm gonna suck, I can tell you already.

386

00:18:28,000 --> 00:18:34,000

Not only will Jamie increase their sample size, but by going Hans free first...

387

00:18:34,000 --> 00:18:36,000

Jamie and I almost never actually speak on the phone.

388

00:18:36,000 --> 00:18:39,000

So this actually has a bit of novelty to me.

389

00:18:39,000 --> 00:18:43,000

The guys are trying to eliminate any course learning bias.

390

00:18:45,000 --> 00:18:47,000

This is Jamie.

391

00:18:47,000 --> 00:18:49,000

Ah, good afternoon, Jamie. It's Adam.

392

00:18:49,000 --> 00:18:52,000

Go ahead and start driving and I'm gonna start asking you some questions.

393

00:18:52,000 --> 00:18:55,000

Adam starts with a simple icebreaker.

394

00:18:55,000 --> 00:19:02,000

Alright, hey Jamie, if you could wake up tomorrow and gain any single quality or ability, what would it be and why?

395

00:19:02,000 --> 00:19:06,000

Uh, I could fly. Why?

396

00:19:06,000 --> 00:19:09,000

But even that proves too much for Jamie.

397

00:19:09,000 --> 00:19:14,000

Well, because then I could go, um, what was the question again?

398

00:19:14,000 --> 00:19:16,000

Why would you like to fly?

399

00:19:16,000 --> 00:19:23,000

Well, because that would, uh, we save a lot of gasoline actually.

400

00:19:23,000 --> 00:19:28,000

And, uh, you know, I could, uh, oh look at that, I bumped over a whole bunch of things.

401

00:19:28,000 --> 00:19:32,000

With no improvement over the rest of the course...

402

00:19:32,000 --> 00:19:34,000

I'd like you to add the numbers 4 and 7.

403

00:19:34,000 --> 00:19:39,000

Let's see, uh, 4 and 7, uh...

404

00:19:39,000 --> 00:19:41,000

Uh...

405

00:19:41,000 --> 00:19:43,000

Tick-tock grandpa.

406

00:19:43,000 --> 00:19:45,000

10.

407

00:19:45,000 --> 00:19:47,000

10.

408

00:19:47,000 --> 00:19:49,000

Jamie scores the worst result of the day.

409

00:19:49,000 --> 00:19:51,000

A disappointing 66.

410

00:19:51,000 --> 00:19:53,000

That was awesome.

411

00:19:53,000 --> 00:19:55,000

He starts every answer with, let's see.

412

00:19:55,000 --> 00:20:04,000

I'm sure I was doing the same things, but it's very enjoyable to listen to someone so distracted.

413

00:20:04,000 --> 00:20:07,000

A quick reset later.

414

00:20:07,000 --> 00:20:09,000

And they're set for the fourth and final run.

415

00:20:09,000 --> 00:20:11,000

Hello.

416

00:20:11,000 --> 00:20:13,000

What are you driving?

417

00:20:13,000 --> 00:20:15,000

Jamie Hans-Full.

418

00:20:15,000 --> 00:20:19,000

I'm going to read you a list of words and ask you to repeat them in a reverse order.

419

00:20:19,000 --> 00:20:21,000

Crash, burn, demolish.

420

00:20:21,000 --> 00:20:25,000

Uh, demolish, uh, burn, crash.

421

00:20:25,000 --> 00:20:27,000

EMT ambulance doctor.

422

00:20:27,000 --> 00:20:29,000

It's quite a narrative implied by these.

423

00:20:29,000 --> 00:20:32,000

Doctor ambulance EMT.

424

00:20:32,000 --> 00:20:34,000

Yes.

425

00:20:34,000 --> 00:20:40,000

Despite having only one hand on the wheel and swapping the phone mid-drive, Jamie scores 72.

426

00:20:40,000 --> 00:20:44,000

Both by some distance, but an improvement nonetheless.

427

00:20:44,000 --> 00:20:46,000

So what does this mean for the myth?

428

00:20:46,000 --> 00:20:52,000

Okay, now for this myth to be true, Jamie's hands-free score had to match his hands-full score,

429

00:20:52,000 --> 00:20:56,000

and so did mine, but that didn't quite happen.

430

00:20:56,000 --> 00:20:58,000

Graphics, help me out.

431

00:20:58,000 --> 00:21:02,000

You can see that I drove better hands-free while Jamie drove better hands-full.

432

00:21:02,000 --> 00:21:08,000

But that data also shows that we both improved on our second runs because we had experience of the course.

433

00:21:08,000 --> 00:21:14,000

Now, if we remove that bias by averaging Jamie's and my data, what do we get?

434

00:21:14,000 --> 00:21:19,000

Beautiful, near-identical scores for each of the two techniques.

435

00:21:19,000 --> 00:21:22,000

But we are not done yet for two particular reasons.

436

00:21:22,000 --> 00:21:25,000

One, our course isn't very real world.

437

00:21:25,000 --> 00:21:27,000

For starters, there's no traffic.

438

00:21:27,000 --> 00:21:31,000

Second, and perhaps more importantly, is Jamie's and my driving abilities.

439

00:21:31,000 --> 00:21:37,000

We've both received tons of training over the years in lots of different driving techniques.

440

00:21:37,000 --> 00:21:43,000

We are quite far from your average Joe's, and that is what we need next.

441

00:21:52,000 --> 00:21:54,000

Three, two, one, go!

442

00:21:56,000 --> 00:22:01,000

Now, Jamie and I have already gone pretty far teaching ourselves the rudiments of driving in reverse.

443

00:22:02,000 --> 00:22:09,000

But if we're going to get really good at this, we're going to need to get trained by an expert.

444

00:22:09,000 --> 00:22:14,000

Luckily, we have an expert in reverse tactical driving, right here.

445

00:22:14,000 --> 00:22:17,000

Hello, sir. Hello.

446

00:22:17,000 --> 00:22:22,000

Brian Frazier is a trainer at the Emergency Vehicle Operations Course here in California.

447

00:22:22,000 --> 00:22:30,000

Now, we've used him repeatedly over past years, whenever we've had to learn how to deal with a particularly difficult driving situation.

448

00:22:30,000 --> 00:22:34,000

And driving at speed in reverse certainly qualifies.

449

00:22:36,000 --> 00:22:38,000

Alright, Brian, where do we start?

450

00:22:38,000 --> 00:22:41,000

We're going to put a barrel here, two barrels here, one on each side of the car.

451

00:22:41,000 --> 00:22:42,000

Alright.

452

00:22:42,000 --> 00:22:46,000

Brian's first job is to ignore the current course.

453

00:22:46,000 --> 00:22:47,000

Right there is good.

454

00:22:47,000 --> 00:22:49,000

Good, good anyway.

455

00:22:49,000 --> 00:22:51,000

This is why we can't have nice things.

456

00:22:51,000 --> 00:22:55,000

And set up something way more straightforward.

457

00:22:55,000 --> 00:22:58,000

Alright, that's the course. Now what do we do?

458

00:22:58,000 --> 00:22:59,000

Drive it.

459

00:22:59,000 --> 00:23:00,000

Okay, let's go.

460

00:23:00,000 --> 00:23:05,000

Because the technique he's going to teach is surprisingly simple.

461

00:23:05,000 --> 00:23:07,000

So I'm going to change my seating position now.

462

00:23:07,000 --> 00:23:08,000

Okay.

463

00:23:08,000 --> 00:23:16,000

I'm going to prop myself up, loosen my seat belt, turn yourself as far as you can around, get your body almost in the center of the car.

464

00:23:16,000 --> 00:23:17,000

Okay.

465

00:23:17,000 --> 00:23:21,000

I'm going to steer the car now with one hand, but this hand will never leave the steering wheel.

466

00:23:21,000 --> 00:23:25,000

Not the gun that can let the steering wheel shift in your hand into a lock.

467

00:23:25,000 --> 00:23:27,000

You're palming the wheel the entire time.

468

00:23:27,000 --> 00:23:29,000

I see. Okay, cool.

469

00:23:29,000 --> 00:23:32,000

And believe it or not, that's apparently all there is to it.

470

00:23:32,000 --> 00:23:37,000

Three, two, one, go.

471

00:23:37,000 --> 00:23:44,000

By shifting his body to the center of the car.

472

00:23:44,000 --> 00:23:45,000

Wow.

473

00:23:45,000 --> 00:23:50,000

And keeping one hand on the wheel at all times.

474

00:23:50,000 --> 00:23:53,000

Wow, I can't believe how fast you're able to do this.

475

00:23:53,000 --> 00:23:59,000

Brian speeds through the course at an impressive 41 miles per hour.

476

00:23:59,000 --> 00:24:02,000

That is amazing.

477

00:24:02,000 --> 00:24:11,000

So Brian just showed me that something I thought was impossible is in fact totally possible, so I'm about to give that a shot.

478

00:24:11,000 --> 00:24:14,000

This is going to be cool.

479

00:24:14,000 --> 00:24:20,000

Like Brian, Adam slides to the center to give a viewpoint that's easier to process.

480

00:24:20,000 --> 00:24:22,000

Oh, look at that.

481

00:24:22,000 --> 00:24:26,000

Okay, so three, two, one.

482

00:24:26,000 --> 00:24:32,000

And like Brian, he then nails the course.

483

00:24:32,000 --> 00:24:34,000

Oh, that's so cool.

484

00:24:34,000 --> 00:24:39,000

To check it wasn't just beginner's luck, he tries again and goes even faster.

485

00:24:39,000 --> 00:24:40,000

Awesome.

486

00:24:40,000 --> 00:24:42,000

I gotta say, this is amazing.

487

00:24:42,000 --> 00:24:50,000

When we got here this morning, I thought Adam was going to be training for four, five, maybe six hours, but it's not been like that at all.

488

00:24:50,000 --> 00:24:56,000

Instead, in just 20 minutes, he's gone from being pretty average to being pretty great.

489

00:24:56,000 --> 00:25:05,000

And it seems to be all down to the central head position, which seems to be letting Adam's brain process the direction to turn much more accurately.

490

00:25:05,000 --> 00:25:09,000

So we're going to put him back on our original course to see how he does now.

491

00:25:09,000 --> 00:25:11,000

Should be interesting.

492

00:25:15,000 --> 00:25:17,000

It's the course that guys couldn't crack.

493

00:25:17,000 --> 00:25:19,000

So you're ready to put what you learned into practice?

494

00:25:19,000 --> 00:25:23,000

I am. In fact, I can't wait to try this course now.

495

00:25:25,000 --> 00:25:29,000

Three, two, one, go.

496

00:25:29,000 --> 00:25:34,000

God will his 20 minutes of training let Adam turn it around.

497

00:25:34,000 --> 00:25:36,000

It's off to a good start.

498

00:25:37,000 --> 00:25:39,000

Turns are a lot smoother this time. He's looking a little good.

499

00:25:39,000 --> 00:25:41,000

Yeah.

500

00:25:41,000 --> 00:25:44,000

Well, yeah, he's moving pretty quick.

501

00:25:44,000 --> 00:25:46,000

Coming in good.

502

00:25:46,000 --> 00:25:48,000

Yeah.

503

00:25:48,000 --> 00:25:51,000

Tell me, tell me, tell me, tell me, tell me, tell me, tell me how it did.

504

00:25:51,000 --> 00:25:53,000

57.25.

505

00:25:53,000 --> 00:25:55,000

Boom! That was cool.

506

00:25:58,000 --> 00:26:03,000

It's close to an astounding result with just two minor modifications.

507

00:26:03,000 --> 00:26:04,000

Yeah.

508

00:26:04,000 --> 00:26:08,000

Adam's bettered his best by over 15%.

509

00:26:08,000 --> 00:26:10,000

All right. Guess it's time to bring on the next event.

510

00:26:11,000 --> 00:26:16,000

And what that means is it's time for some real-life movie mayhem.

511

00:26:16,000 --> 00:26:21,000

But first, hold the phone.

512

00:26:23,000 --> 00:26:31,000

Because in driving distracted, neither Adam nor Jamie could drive safely while talking hands-free.

513

00:26:38,000 --> 00:26:42,000

But now, in a location way more sophisticated,

514

00:26:43,000 --> 00:26:45,000

it's locked.

515

00:26:45,000 --> 00:26:47,000

It's time to up the ante.

516

00:26:47,000 --> 00:26:53,000

Jamie and I have realized we need much more controlled scientific and realistic conditions,

517

00:26:53,000 --> 00:26:59,000

which is why we've come here to enlist the help of the experts at the Stanford University Automotive Innovation Facility.

518

00:26:59,000 --> 00:27:05,000

When we ask for their help in getting more realistic, they showed us a virtual world. Come here.

519

00:27:06,000 --> 00:27:09,000

This is their state-of-the-art driving simulator.

520

00:27:09,000 --> 00:27:10,000

It is awesome.

521

00:27:10,000 --> 00:27:16,000

From the front seat of this car, you are completely immersed in a world controlled and designed by a computer,

522

00:27:16,000 --> 00:27:22,000

into which we can add all sorts of traffic, pedestrians, obstacles, and surprises for all of our test subjects.

523

00:27:22,000 --> 00:27:26,000

That's right, many, many test subjects while we get to the bottom of this myth.

524

00:27:29,000 --> 00:27:31,000

It's a multi-million dollar machine.

525

00:27:31,000 --> 00:27:35,000

All right then, going for a drive in the simulator.

526

00:27:35,000 --> 00:27:39,000

Which Jamie can't resist turning up to 11.

527

00:27:39,000 --> 00:27:40,000

Okay, here we go.

528

00:27:44,000 --> 00:27:45,000

I want to go the other way.

529

00:27:45,000 --> 00:27:46,000

Whoa!

530

00:27:46,000 --> 00:27:48,000

This is crazy.

531

00:27:54,000 --> 00:27:58,000

Crazy driving aside, this driving simulator is actually very good.

532

00:27:58,000 --> 00:28:00,000

Yeah, let's get out of here.

533

00:28:02,000 --> 00:28:12,000

The way the screen wraps around, the visuals are convincing enough that you have to remind yourself that this isn't a real driving scenario.

534

00:28:12,000 --> 00:28:15,000

He's doing like 95, interesting.

535

00:28:15,000 --> 00:28:17,000

Let's see how he likes this.

536

00:28:19,000 --> 00:28:25,000

In fact, it's so good that I was starting to get a little carsick.

537

00:28:25,000 --> 00:28:33,000

So, I think as far as testing distracted driving, it's as good a simulation as we're going to get.

538

00:28:33,000 --> 00:28:41,000

As well as the freeway, there's also a detailed cityscape.

539

00:28:41,000 --> 00:28:44,000

I guess I better put it in reverse.

540

00:28:44,000 --> 00:28:47,000

So that all driving environments are tested.

541

00:28:47,000 --> 00:28:57,000

The 30 volunteer drivers will be judged on whether they pay attention to the GPS instructions.

542

00:28:57,000 --> 00:28:59,000

At the next intersection, turn left.

543

00:28:59,000 --> 00:29:01,000

And whether or not they crash.

544

00:29:04,000 --> 00:29:10,000

But that's not the only data, because drivers will also wear the latest in eye tracking technology.

545

00:29:10,000 --> 00:29:16,000

This eye tracking system records precisely where and how long I'm looking at something.

546

00:29:16,000 --> 00:29:21,000

Now, that's going to give us hard data as to the level of distraction that I'm experiencing while I'm driving.

547

00:29:21,000 --> 00:29:26,000

With Eagle Eye Jamie all wired up, he's going to be the first data of the day.

548

00:29:26,000 --> 00:29:28,000

Alright, calling him now.

549

00:29:29,000 --> 00:29:31,000

Starting after the break.

550

00:29:31,000 --> 00:29:32,000

Hello.

551

00:29:41,000 --> 00:29:44,000

Using a phone on the road is bad news.

552

00:29:46,000 --> 00:29:50,000

But he's going hands free just as foolish.

553

00:29:52,000 --> 00:29:56,000

To find out, the Mythbusters have a simulator that's second to none.

554

00:29:56,000 --> 00:29:58,000

I love this thing.

555

00:29:58,000 --> 00:30:00,000

Alright, calling him now.

556

00:30:00,000 --> 00:30:03,000

And a Heinemann that's got his hands full.

557

00:30:03,000 --> 00:30:04,000

Hello.

558

00:30:04,000 --> 00:30:06,000

Good morning, Mr. Heinemann.

559

00:30:06,000 --> 00:30:08,000

Are you ready to start this test?

560

00:30:08,000 --> 00:30:09,000

I'm ready.

561

00:30:09,000 --> 00:30:13,000

Okay, kick the car to drive, start driving, and I'll start asking you some questions.

562

00:30:13,000 --> 00:30:16,000

The questions are similar to those posed before.

563

00:30:16,000 --> 00:30:19,000

Did you play a musical instrument as a child, Jamie?

564

00:30:19,000 --> 00:30:28,000

I had a tuba in the bathroom right next to the toilet that I was playing when I was doing number two or something.

565

00:30:28,000 --> 00:30:36,000

But what's interesting is that on the freeway, speed underwater camera, Jamie's driving.

566

00:30:36,000 --> 00:30:39,000

Hold on, yeah, somebody just pulled in front of me.

567

00:30:39,000 --> 00:30:43,000

And answers, camera underwater speed, are surprisingly solid.

568

00:30:43,000 --> 00:30:49,000

In fact, it's only when he hits the streets, 12 and 7, that he starts to waver.

569

00:30:49,000 --> 00:30:55,000

Okay, uh, uh, let's see, 19.

570

00:30:55,000 --> 00:31:01,000

With so many distractions, it's no surprise when Jamie takes a turn for the worse.

571

00:31:01,000 --> 00:31:04,000

At the next intersection, turn left.

572

00:31:06,000 --> 00:31:08,000

Jamie, you have taken a wrong turn.

573

00:31:09,000 --> 00:31:13,000

And that means that the test is over, you have failed.

574

00:31:13,000 --> 00:31:14,000

Okay.

575

00:31:14,000 --> 00:31:19,000

With no rest for the wicked, Jamie immediately moves on to the hands-free test.

576

00:31:19,000 --> 00:31:20,000

Hello.

577

00:31:20,000 --> 00:31:24,000

What is the longest running race in the Olympic Games called?

578

00:31:24,000 --> 00:31:31,000

The longest running race in the Olympic Games is called a marathon.

579

00:31:31,000 --> 00:31:33,000

A marathon?

580

00:31:33,000 --> 00:31:34,000

Marathon.

581

00:31:34,000 --> 00:31:35,000

You mean marathon?

582

00:31:35,000 --> 00:31:36,000

Yeah.

583

00:31:36,000 --> 00:31:37,000

Okay.

584

00:31:37,000 --> 00:31:42,000

Once again, Jamie's focused on the freeway, but struggles in the city,

585

00:31:42,000 --> 00:31:46,000

as his brain tries to process the traffic and the conversation.

586

00:31:46,000 --> 00:31:49,000

The earth is located in what galaxy?

587

00:31:49,000 --> 00:31:57,000

Uh, the, um, you know, I don't know the answer to that question.

588

00:31:57,000 --> 00:32:04,000

Like last time, Jamie doesn't crash, but he does ignore the GPS.

589

00:32:04,000 --> 00:32:05,000

Oh, I'm sorry.

590

00:32:05,000 --> 00:32:07,000

I screwed this up.

591

00:32:07,000 --> 00:32:09,000

Meaning he's failed again.

592

00:32:09,000 --> 00:32:13,000

Well, the long and the short of it is that Jamie has done this test twice in our virtual environment,

593

00:32:13,000 --> 00:32:17,000

once holding the phone, once hands-free, and he has failed both times.

594

00:32:17,000 --> 00:32:20,000

It's looking pretty good for this myth, but we are not leaving it here.

595

00:32:20,000 --> 00:32:25,000

No, no, no, we're going to funnel a whole bunch of volunteers through this testing procedure

596

00:32:25,000 --> 00:32:31,000

to get some real numbers to back up our potential conclusion.

597

00:32:35,000 --> 00:32:41,000

First of the 30 volunteers is Tiffany, who will be driving hands full.

598

00:32:41,000 --> 00:32:47,000

The first thing I want to know is what musical instrument you played as a child.

599

00:32:47,000 --> 00:32:48,000

None.

600

00:32:48,000 --> 00:32:51,000

On the freeway, her driving is solid.

601

00:32:51,000 --> 00:32:52,000

Logic questions.

602

00:32:52,000 --> 00:32:54,000

And her answers are perfect.

603

00:32:54,000 --> 00:32:56,000

Name four days to start with the letter T.

604

00:32:56,000 --> 00:32:59,000

Today, tomorrow, Tuesday, and Thursday.

605

00:32:59,000 --> 00:33:00,000

Excellent.

606

00:33:00,000 --> 00:33:04,000

But moments after hitting the city, how much dirt is...

607

00:33:07,000 --> 00:33:08,000

Uh-oh.

608

00:33:08,000 --> 00:33:10,000

We just ran down a cyclist.

609

00:33:10,000 --> 00:33:11,000

This test is over.

610

00:33:15,000 --> 00:33:16,000

Next up is Michael.

611

00:33:16,000 --> 00:33:17,000

Hello?

612

00:33:17,000 --> 00:33:20,000

And hands-free, he's fine on the freeway.

613

00:33:20,000 --> 00:33:25,000

What is something you have at home that you should throw away, but you can't?

614

00:33:25,000 --> 00:33:27,000

Oh, my old computer.

615

00:33:27,000 --> 00:33:30,000

I still have one that got built in like 95.

616

00:33:30,000 --> 00:33:32,000

But deadly downtown.

617

00:33:32,000 --> 00:33:33,000

Which country?

618

00:33:33,000 --> 00:33:40,000

Oh, I believe that might be the end of our test there, Michael.

619

00:33:40,000 --> 00:33:41,000

Where did that come from?

620

00:33:44,000 --> 00:33:46,000

Thank you very much, sir.

621

00:33:49,000 --> 00:33:52,000

When the next four volunteers also crash and burn.

622

00:33:55,000 --> 00:33:57,000

It's looking good for the myth.

623

00:33:57,000 --> 00:34:01,000

Stop the car and please license and registration, ma'am.

624

00:34:01,000 --> 00:34:05,000

And although driver seven does make it through the course intact.

625

00:34:05,000 --> 00:34:07,000

All right, congratulations.

626

00:34:07,000 --> 00:34:09,000

You have successfully completed the test.

627

00:34:09,000 --> 00:34:14,000

Nearly all other drivers, whatever their phone fashion, either get lost.

628

00:34:14,000 --> 00:34:19,000

Ron, I am sorry to inform you that you have now missed a turn and thus the test is over.

629

00:34:19,000 --> 00:34:20,000

Or worse.

630

00:34:20,000 --> 00:34:25,000

Oh, we had a crash, didn't we?

631

00:34:25,000 --> 00:34:29,000

Undeterred, the guys plow on through two full days of testing.

632

00:34:29,000 --> 00:34:33,000

And when volunteer 30 takes dramatic evasive action.

633

00:34:33,000 --> 00:34:36,000

I suck at this.

634

00:34:36,000 --> 00:34:39,000

The guys have all the data they could hope for.

635

00:34:39,000 --> 00:34:42,000

All right, we have run a lot of volunteers through this experiment.

636

00:34:42,000 --> 00:34:44,000

We've got a lot of data to take a look at.

637

00:34:44,000 --> 00:34:49,000

So it's time to leave this virtual world, drive through the real world back to our shop.

638

00:34:49,000 --> 00:34:51,000

And crunch the numbers.

639

00:34:56,000 --> 00:34:58,000

No way, they said that.

640

00:34:58,000 --> 00:35:00,000

That is hilarious.

641

00:35:00,000 --> 00:35:01,000

Hold on just a second. What?

642

00:35:01,000 --> 00:35:04,000

We were waiting for the results on distracted driving.

643

00:35:04,000 --> 00:35:06,000

Okay, I got to call you back.

644

00:35:06,000 --> 00:35:08,000

Yes, we have results.

645

00:35:08,000 --> 00:35:12,000

We tested 30 drivers out in Stanford, 15 hands full, 15 hands free.

646

00:35:12,000 --> 00:35:14,000

Here is the result.

647

00:35:14,000 --> 00:35:18,000

Hands full, one passed, five failed by driving the wrong way,

648

00:35:18,000 --> 00:35:23,000

nine failed by crashing, hands free, one passed, six failed by getting lost,

649

00:35:23,000 --> 00:35:25,000

and eight failed by crashing.

650

00:35:25,000 --> 00:35:27,000

What's that mean statistically?

651

00:35:27,000 --> 00:35:29,000

Statistically it means no difference.

652

00:35:29,000 --> 00:35:31,000

And what about eye tracking?

653

00:35:31,000 --> 00:35:33,000

The eye tracker was very interesting.

654

00:35:33,000 --> 00:35:37,000

Across all 30 drivers, the amount of time they spent looking at something other than the road

655

00:35:37,000 --> 00:35:41,000

was identical between hands free and hands full.

656

00:35:41,000 --> 00:35:43,000

Well, there you have it.

657

00:35:43,000 --> 00:35:45,000

Don't use your cell phone while you're driving.

658

00:35:45,000 --> 00:35:47,000

Yeah, I'm done.

659

00:35:47,000 --> 00:35:49,000

Where do you want to meet for lunch?

660

00:35:49,000 --> 00:35:51,000

Absolutely.

661

00:35:55,000 --> 00:36:00,000

Coming right up, the guys rev in reverse.

662

00:36:00,000 --> 00:36:02,000

Yeah!

663

00:36:02,000 --> 00:36:04,000

For a confounding conclusion.

664

00:36:04,000 --> 00:36:06,000

Ah!

665

00:36:11,000 --> 00:36:14,000

In driving in reverse, there's a problem.

666

00:36:14,000 --> 00:36:17,000

We can't catch a break today.

667

00:36:17,000 --> 00:36:24,000

We just rolled up the windows as the wind so diabolical, and we locked the keys inside.

668

00:36:24,000 --> 00:36:29,000

Luckily, for once there's a cop around when you need them.

669

00:36:32,000 --> 00:36:34,000

Hey!

670

00:36:34,000 --> 00:36:39,000

Midbusters, repossessing cars since 1979.

671

00:36:45,000 --> 00:36:54,000

It's all about reverse driving in this episode, and how easy it is versus how easy Hollywood makes it seem.

672

00:36:54,000 --> 00:36:58,000

Jamie and I have tried out some courses ourselves.

673

00:37:01,000 --> 00:37:05,000

We've been trained by a cop who's an expert in driving in reverse.

674

00:37:05,000 --> 00:37:06,000

Here we go.

675

00:37:06,000 --> 00:37:08,000

Three, two, reverse.

676

00:37:08,000 --> 00:37:09,000

There we go.

677

00:37:09,000 --> 00:37:10,000

Thank you.

678

00:37:10,000 --> 00:37:16,000

So now it's time for me to take all the skills I've thus far learned and put them to a real test.

679

00:37:16,000 --> 00:37:21,000

I'm here in an abandoned neighborhood in Marina, California where my crew has set up a course,

680

00:37:21,000 --> 00:37:25,000

and I'm just supposed to drive as fast as I can in reverse.

681

00:37:25,000 --> 00:37:28,000

I'm actually pretty curious how this is going to turn out.

682

00:37:29,000 --> 00:37:36,000

This final farewell is a half mile of twists and turns, but it's got a whole lot more besides.

683

00:37:37,000 --> 00:37:44,000

As the guys have put the movie mayhem back into this myth, and that's not just the props.

684

00:37:44,000 --> 00:37:51,000

We're going to put a little pressure on Adam because I'm going to be in a cop car on his ass the whole way

685

00:37:51,000 --> 00:37:57,000

with the sole exception that when he sees me and takes off, I'm going to be outside my car.

686

00:37:57,000 --> 00:38:00,000

So he's going to have just a little bit of a head start.

687

00:38:01,000 --> 00:38:08,000

Adam's goal, like the classic Hollywood hero, is to make it to the finish line before those pesky police.

688

00:38:08,000 --> 00:38:10,000

That is a cop. That's bad.

689

00:38:10,000 --> 00:38:14,000

But with reverse gear, his only option will he escape to victory.

690

00:38:14,000 --> 00:38:16,000

Here we go. Bike hop.

691

00:38:18,000 --> 00:38:20,000

The chase is on.

692

00:38:20,000 --> 00:38:23,000

Here we go. Getting the heck out of here.

693

00:38:23,000 --> 00:38:27,000

And by the time Jamie's got going, Adam's already out of sight.

694

00:38:27,000 --> 00:38:31,000

I'm going to make a right hand turn here. Don't let go of that wheel.

695

00:38:31,000 --> 00:38:35,000

By shifting to the central position, he's able to navigate with skill.

696

00:38:35,000 --> 00:38:41,000

Whoa! Flaming car! Dude! Oh man! Close the block clubs!

697

00:38:41,000 --> 00:38:43,000

At least when he wants to.

698

00:38:43,000 --> 00:38:46,000

I want those boxes! Come on! Yeah!

699

00:38:46,000 --> 00:38:49,000

But while his steering is supreme...

700

00:38:49,000 --> 00:38:52,000

I don't know where he is. I hope he's not close.

701

00:38:52,000 --> 00:38:56,000

His speed, while fast, is no match for Jamie.

702

00:38:56,000 --> 00:38:59,000

Oh, fruit stand! I'm not going to miss the fruit stand.

703

00:39:14,000 --> 00:39:19,000

Adam may be down, but he's not out as he reverses back uphill.

704

00:39:19,000 --> 00:39:21,000

I'm going still!

705

00:39:21,000 --> 00:39:24,000

A strategy that the Heinemann then copies.

706

00:39:25,000 --> 00:39:31,000

With both drivers now revving in reverse, it's a case of who's going to blink first.

707

00:39:38,000 --> 00:39:45,000

Oh! Yet another in a long line of things that we should just set up for the public and charge money for.

708

00:39:45,000 --> 00:39:47,000

That was awesome.

709

00:39:47,000 --> 00:39:50,000

Step out of the car with your hands up.

710

00:39:54,000 --> 00:40:00,000

That was so much fun. Oh my God. That was the best thing ever.

711

00:40:04,000 --> 00:40:07,000

Well, that went pretty much as good as I could have imagined.

712

00:40:07,000 --> 00:40:11,000

First off, the course was amazing, full of all sorts of really interesting obstacles,

713

00:40:11,000 --> 00:40:16,000

from fruit stands to dudes fixing their cars to, come on, a flaming car.

714

00:40:16,000 --> 00:40:19,000

I also was able to go through it really fast.

715

00:40:19,000 --> 00:40:23,000

I mean, fast enough where I almost lost control of the car on a couple of the straightaways.

716

00:40:23,000 --> 00:40:29,000

Like it started fishtailing, but because of Brian's training, I was able to bring the car back under control.

717

00:40:29,000 --> 00:40:32,000

Whoa! Almost lost control there.

718

00:40:32,000 --> 00:40:39,000

Then I actually spun out that Jamie hit me, but again, in reverse, I bolted back up the hill and Jamie chased me,

719

00:40:39,000 --> 00:40:44,000

and it was all going pretty good, but I was going too fast on the accelerator,

720

00:40:44,000 --> 00:40:49,000

and I spun out, jammed into my front wheel and I could not move. Test over.

721

00:40:53,000 --> 00:40:55,000

So how do you want to call it?

722

00:40:55,000 --> 00:40:58,000

I have to say, I started this story thinking it was going to be handily busted,

723

00:40:58,000 --> 00:41:01,000

and I am now thinking that it's actually plausible.

724

00:41:01,000 --> 00:41:06,000

It's not unreasonable how much speed and maneuverability you can get going in reverse.

725

00:41:06,000 --> 00:41:13,000

Yeah, I mean, both of us, I think, if we had our choice, would go, you know, front forward.

726

00:41:13,000 --> 00:41:14,000

Yeah.

727

00:41:14,000 --> 00:41:17,000

Because that's going to be your better option, but surprising how good it can be.

728

00:41:17,000 --> 00:41:19,000

Let's call it plausible.

729

00:41:19,000 --> 00:41:20,000

Alright.

730

00:41:20,000 --> 00:41:21,000

Alright, I'm going to drive forward home.

731

00:41:21,000 --> 00:41:22,000

If you can.