

1

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

MUSIC

2

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

MUSIC

3

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

What are you laughing at?

4

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

Just the front page of the internet.

5

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

Have you seen this one?

6

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

Uh, yeah, read it.

7

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

How about this one?

8

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

Read it.

9

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

You know, it really should consider going digital, don't you think?

10

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

MUSIC

11

00:00:58,000 --> 00:01:07,000

MUSIC

12

00:01:07,000 --> 00:01:09,000

Jamie, do you know what Reddit is?

13

00:01:09,000 --> 00:01:11,000

Other than the sound a frog makes?

14

00:01:11,000 --> 00:01:14,000

Nice. Uh, no, Reddit is actually an online community

15

00:01:14,000 --> 00:01:17,000

discussing pretty much everything every single day.

16

00:01:17,000 --> 00:01:19,000

They call themselves the front page of the internet

17

00:01:19,000 --> 00:01:21,000

and that's not far from the truth.

18

00:01:21,000 --> 00:01:24,000

I was kidding. I know what Reddit is, but, uh, what's that mean to us?

19

00:01:24,000 --> 00:01:26,000

Obviously, you know, we couldn't do this show

20

00:01:26,000 --> 00:01:28,000

without the submissions we get from fans.

21

00:01:28,000 --> 00:01:30,000

And seeing an opportunity because we're very popular on Reddit,

22

00:01:30,000 --> 00:01:33,000

I went on the site a few months ago and solicited ideas

23

00:01:33,000 --> 00:01:36,000

that we could test on a MythBusters Reddit-based episode.

24

00:01:36,000 --> 00:01:38,000

Did it work?

25

00:01:38,000 --> 00:01:41,000

Actually, gangbusters. We got over 7,000 responses.

26

00:01:41,000 --> 00:01:44,000

Now, once we weeded out the ones that were not family-friendly,

27

00:01:44,000 --> 00:01:47,000

not good for television, and were just plain gross and disgusting,

28

00:01:47,000 --> 00:01:49,000

you know who you are.

29

00:01:49,000 --> 00:01:52,000

We were actually able to get several that are eminently testable by us.

30

00:01:52,000 --> 00:01:53,000

Like what?

31

00:01:53,000 --> 00:01:55,000

Well, later we'll be throwing buster from a helicopter.

32

00:01:55,000 --> 00:01:57,000

There it goes!

33

00:01:57,000 --> 00:02:00,000

Trying to punch our way out of a paper bag.

34

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

And fans wanted a gratuitous explosion, and I think we should oblige.

35

00:02:04,000 --> 00:02:05,000

Naturally.

36

00:02:05,000 --> 00:02:09,000

But first, Reddit has wanted us to test whether a fart is visible

37

00:02:09,000 --> 00:02:11,000

using thermal imaging technology.

38

00:02:11,000 --> 00:02:13,000

There's a viral video that purports to show this,

39

00:02:13,000 --> 00:02:15,000

and they want us to test whether it's true.

40

00:02:15,000 --> 00:02:16,000

Can we save fart?

41

00:02:16,000 --> 00:02:19,000

It's our last season. What are they going to do? Fire us?

42

00:02:19,000 --> 00:02:21,000

From the very beginning...

43

00:02:21,000 --> 00:02:23,000

Hey!

44

00:02:23,000 --> 00:02:25,000

...the most popular fan submissions...

45

00:02:25,000 --> 00:02:29,000

I allocate myself to six gas passings per day.

46

00:02:29,000 --> 00:02:32,000

...have been myths about gas emissions.

47

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

Flattis.

48

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

Hey! We got one!

49

00:02:36,000 --> 00:02:41,000

...so stand by for another detour down under.

50

00:02:41,000 --> 00:02:45,000

Because Reddit wants to know if this is a viral video fake,

51

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

or flatulent fact.

52

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

And Adams starting at the bottom.

53

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

The last time on Mythbusters, we attempted to catch a Flattis on film.

54

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

It was devilishly difficult.

55

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

You got one?

56

00:02:58,000 --> 00:02:59,000

I think so.

57

00:02:59,000 --> 00:03:01,000

No.

58

00:03:01,000 --> 00:03:02,000

Nothing.

59

00:03:02,000 --> 00:03:06,000

We still hope to do this experiment with a real human.

60

00:03:06,000 --> 00:03:11,000

Flattis, which is why I'm drinking all this lovely carbonated seltzer water.

61

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

But just in case that does not work...

62

00:03:13,000 --> 00:03:15,000

Oh, wait.

63

00:03:15,000 --> 00:03:17,000

No, I got a pee.

64

00:03:17,000 --> 00:03:23,000

I am planning to build a machine that can also eject a Flattis.

65

00:03:23,000 --> 00:03:25,000

That's what all this equipment is.

66

00:03:25,000 --> 00:03:28,000

It will soon be a machine that can fart.

67

00:03:28,000 --> 00:03:34,000

The basic gist of my Flattis generator design is that it needs to be at body temperature.

68

00:03:34,000 --> 00:03:38,000

That's the temperature our home-built Flattises are.

69

00:03:38,000 --> 00:03:41,000

So, I'm going to generate the Flattis from inside a gas chamber,

70

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

floating in a water bath that will be kept at human body temperature.

71

00:03:45,000 --> 00:03:48,000

That might not be clear right now, but it will once I start to build it.

72

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

Ah, f***!

73

00:03:51,000 --> 00:03:55,000

That was a complete and total disaster.

74

00:03:55,000 --> 00:03:59,000

Adam's demo may be a while longer than expected.

75

00:03:59,000 --> 00:04:03,000

Meanwhile, here's a hide-shot Heinemann talking tech.

76

00:04:03,000 --> 00:04:08,000

So, the story here goes that you can use a thermal imaging camera to see a Flattis.

77

00:04:08,000 --> 00:04:13,000

We've ended up using these quite a bit on the show to tell whether things are hot or cold.

78

00:04:13,000 --> 00:04:15,000

Like some demented elf.

79

00:04:15,000 --> 00:04:20,000

And you can see by looking at the image of my face that the bright yellow areas are the hot ones.

80

00:04:20,000 --> 00:04:23,000

The darker blue ones, like my hat, are colder.

81

00:04:23,000 --> 00:04:30,000

So, given that a gas coming out of my body should probably be about the same temperature as my body,

82

00:04:30,000 --> 00:04:32,000

you would think that it would show up.

83

00:04:32,000 --> 00:04:35,000

Yep, a thermal camera measures infrared light.

84

00:04:35,000 --> 00:04:36,000

Just putting my hand down.

85

00:04:36,000 --> 00:04:40,000

Calculates temperature and renders a scaled image from the data.

86

00:04:41,000 --> 00:04:45,000

Older technology does so in black and white.

87

00:04:45,000 --> 00:04:51,000

Modern, ultra-sensitive cameras like ours have a full range of color.

88

00:04:51,000 --> 00:04:54,000

But can it really pick up hot air?

89

00:04:56,000 --> 00:04:59,000

With no natural Flattis forthcoming...

90

00:04:59,000 --> 00:05:03,000

Yeah, oh, wrong end.

91

00:05:03,000 --> 00:05:06,000

Adam, I'm going to build a fart maker.

92

00:05:06,000 --> 00:05:08,000

I'm going to make a fancy fart maker.

93

00:05:09,000 --> 00:05:18,000

Fast-forward production on his magnificent machine to produce human temperature Flattis.

94

00:05:22,000 --> 00:05:24,000

Perfect!

95

00:05:27,000 --> 00:05:29,000

Alright, okay.

96

00:05:29,000 --> 00:05:30,000

Here's how this works.

97

00:05:30,000 --> 00:05:34,000

Clearly inside, I've got an air chamber that's where the farts are formed.

98

00:05:34,000 --> 00:05:39,000

Around that, I have a water bath, which I will keep to a constant human body temperature.

99

00:05:39,000 --> 00:05:47,000

I also have an ambient thermocouple inside the air chamber telling me what the temperature is inside there.

100

00:05:47,000 --> 00:05:53,000

When that gets to 98.6, I'm going to let fly, literally, let fly with this.

101

00:05:56,000 --> 00:06:01,000

Uh-huh, and we're going to see if that's visible under our thermal imaging camera.

102

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

While Adam waits for his wind machine to warm to the occasion...

103

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

Are we allowed to show this on television? I can't believe we are.

104

00:06:13,000 --> 00:06:15,000

It's on to your second suggestion.

105

00:06:15,000 --> 00:06:16,000

So what's next?

106

00:06:16,000 --> 00:06:19,000

Next up is a bad day for Buster, basically.

107

00:06:19,000 --> 00:06:26,000

Redditors want to know what would happen to Buster if we threw him out of a helicopter while he's inside of one of those giant inflatable hamster balls?

108

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

A f**king f**king f**king f**king.

109

00:06:27,000 --> 00:06:29,460

Right, but that's a brand name, so we can't say s***,

110

00:06:29,540 --> 00:06:31,040

so we call it a hamster ball.

111

00:06:31,100 --> 00:06:33,140

Redditors want to know if the inflatable ball

112

00:06:33,200 --> 00:06:34,400

would break Buster's fall

113

00:06:34,480 --> 00:06:36,380

and allow him to safely leave a helicopter

114

00:06:36,440 --> 00:06:37,500

without a parachute.

115

00:06:37,580 --> 00:06:39,680

If it turns out to be safe, can I do it?

116

00:06:39,740 --> 00:06:41,680

Knock yourself out.

117

00:06:41,740 --> 00:06:45,980

...in this final season fling,

118

00:06:46,040 --> 00:06:49,120

Buster's being chucked from a chopper in style.

119

00:06:49,180 --> 00:06:53,160

This is gonna be big.

120

00:06:53,220 --> 00:06:54,620

All right, Reddit, you ask for it,

121

00:06:54,680 --> 00:06:56,220

and we are going to do it.

122

00:06:56,220 --> 00:06:58,460

Shut up.

123

00:06:58,520 --> 00:07:00,960

I'm standing in a runway in Half Moon Bay, California,

124

00:07:01,020 --> 00:07:03,700

about 30 minutes south of Mythbusters' shop.

125

00:07:03,760 --> 00:07:05,400

It's only gonna hurt for a little bit.

126

00:07:05,460 --> 00:07:06,700

Just for an instant.

127

00:07:06,760 --> 00:07:08,700

And soon Buster will perform another

128

00:07:08,760 --> 00:07:11,440

in a long line of Darwin Award-type stunts.

129

00:07:11,500 --> 00:07:15,240

He's going to figure out if this is a viable method

130

00:07:15,300 --> 00:07:17,740

of survival when you're thrown from a helicopter.

131

00:07:17,800 --> 00:07:20,220

But first, of course,

132

00:07:20,280 --> 00:07:21,920

I'm gonna need to take it out for a spin.

133

00:07:21,980 --> 00:07:23,280

Whoa!

134

00:07:23,280 --> 00:07:27,180

It was one of Reddit's most popular suggestions.

135

00:07:27,240 --> 00:07:31,320

And opinion is divided on the potential result.

136

00:07:31,380 --> 00:07:34,220

The math says that the ball's largest surface area

137

00:07:34,280 --> 00:07:37,920

will slow Buster's terminal velocity by more than half.

138

00:07:38,000 --> 00:07:41,500

And it will also cushion his impact like an airbag.

139

00:07:41,560 --> 00:07:45,160

But will it make the 1,000-foot fall survivable?

140

00:07:45,240 --> 00:07:49,240

To find out, Buster's ride arrives.

141

00:07:49,300 --> 00:07:51,100

The big dog.

142

00:07:51,120 --> 00:07:54,200

Sharp-eyed Mythbuster fans will recognize this helicopter.

143

00:07:54,260 --> 00:07:56,960

It's been on our show before.

144

00:07:57,040 --> 00:07:58,840

Over 10 years ago,

145

00:07:58,900 --> 00:08:01,740

I actually sat in the open door and dropped Buster

146

00:08:01,800 --> 00:08:04,440

in an inflatable wrap.

147

00:08:04,500 --> 00:08:07,280

The Sikorsky will be doing the heavy lifting.

148

00:08:07,340 --> 00:08:09,180

But in this final season epic,

149

00:08:09,240 --> 00:08:11,280

he won't be flying solo.

150

00:08:13,220 --> 00:08:14,920

So that we can give you Redditors

151

00:08:14,980 --> 00:08:17,280

the best possible footage of what happens here.

152

00:08:17,360 --> 00:08:19,520

We've hired a lot of people to help us.

153

00:08:19,520 --> 00:08:21,820

We've got the footage of what happens here.

154

00:08:21,880 --> 00:08:24,580

We've hired a specialized separate helicopter

155

00:08:24,660 --> 00:08:29,660

with its own carbon-fiber, gyro-stabilized camera thingabobby.

156

00:08:29,720 --> 00:08:31,460

It's gonna be great.

157

00:08:31,520 --> 00:08:32,920

Maybe not for Buster,

158

00:08:33,000 --> 00:08:36,220

who gets to be the fall guy not once, but twice.

159

00:08:36,300 --> 00:08:40,660

Once in the ball and once as a control without.

160

00:08:40,740 --> 00:08:42,800

But how will his injuries be measured?

161

00:08:42,860 --> 00:08:44,600

We've used electronics in the past

162

00:08:44,680 --> 00:08:46,800

to measure shock loads to things that we're testing.

163

00:08:46,880 --> 00:08:49,280

But there's an inherent problem with him

164

00:08:49,300 --> 00:08:53,340

with the stuff that we do is so violent

165

00:08:53,400 --> 00:08:55,680

that we break the instrumentation in the process

166

00:08:55,740 --> 00:08:58,540

and we don't get our measurements.

167

00:08:58,620 --> 00:09:01,320

So we've gotten in the habit of using these things.

168

00:09:01,380 --> 00:09:02,820

They're shock watches,

169

00:09:02,880 --> 00:09:05,320

and they're pretty basic and foolproof.

170

00:09:05,380 --> 00:09:07,660

I'm putting 50G shock watches on the head,

171

00:09:07,720 --> 00:09:10,900

and I'm gonna be putting 100G shock watches on the chest,

172

00:09:10,960 --> 00:09:13,560

which is what it takes to kill somebody there.

173

00:09:16,300 --> 00:09:18,760

Here's how this is gonna work.

174

00:09:18,780 --> 00:09:20,380

All right, Buster. Here you go.

175

00:09:20,460 --> 00:09:23,220

Three, two, one.

176

00:09:23,280 --> 00:09:25,020

Buster and I in this helicopter

177

00:09:25,080 --> 00:09:26,860

are gonna fly to 1,000 feet.

178

00:09:26,920 --> 00:09:29,460

Have a nice flight there, guy.

179

00:09:29,520 --> 00:09:31,460

Thank you, or did you mean Buster?

180

00:09:31,520 --> 00:09:32,760

I'm not Buster. Okay, cool.

181

00:09:32,820 --> 00:09:34,560

You don't care so much about that.

182

00:09:34,620 --> 00:09:38,660

When we get to 1,000 feet, I'm going to drop that sandbag

183

00:09:38,740 --> 00:09:40,900

to make sure we're aimed correctly.

184

00:09:40,960 --> 00:09:43,100

Well, here we go.

185

00:09:43,160 --> 00:09:44,840

I will then cut Buster's seat belt,

186

00:09:44,900 --> 00:09:46,240

kick him out of the helicopter,

187

00:09:46,300 --> 00:09:47,440

and drop him on the target.

188

00:09:47,460 --> 00:09:50,280

That's our control to see what happens when Buster falls

189

00:09:50,340 --> 00:09:52,320

without anything breaking his fall.

190

00:10:14,620 --> 00:10:15,920

That is so cool.

191

00:10:17,440 --> 00:10:19,120

Look at that.

192

00:10:19,180 --> 00:10:22,020

The view from up here is absolutely magnificent.

193

00:10:22,080 --> 00:10:24,020

We're at 800 feet.

194

00:10:24,080 --> 00:10:26,080

Unpredictable winds won't affect

195

00:10:26,160 --> 00:10:28,060

the velocity of Buster's impact,

196

00:10:28,120 --> 00:10:30,520

but too much sideways drift

197

00:10:30,600 --> 00:10:32,920

could be a danger for those below.

198

00:10:36,100 --> 00:10:37,800

We're at 1,000 feet.

199

00:10:37,860 --> 00:10:40,140

All right, we're in proper position

200

00:10:40,200 --> 00:10:43,140

to make sure our gear is in the right position.

201

00:10:43,200 --> 00:10:44,700

We're at 800 feet.

202

00:10:44,700 --> 00:10:46,700

All right, we're in proper position

203

00:10:46,760 --> 00:10:48,040

to make sure our aiming is good.

204

00:10:48,100 --> 00:10:49,600

I'm about to drop the sandbag.

205

00:10:49,680 --> 00:10:55,380

Here we go. In three, two, one.

206

00:10:56,780 --> 00:10:58,540

There's the sandbag away.

207

00:10:58,620 --> 00:11:00,280

Here comes the sandbag.

208

00:11:03,420 --> 00:11:04,960

Got a reposition here.

209

00:11:06,620 --> 00:11:08,060

Okay, Adam, I'm ready.

210

00:11:08,120 --> 00:11:10,560

Copy that. It's time to drop Buster.

211

00:11:10,620 --> 00:11:13,360

First, I'm going to cut his seat belt.

212

00:11:13,380 --> 00:11:14,560

There we go.

213

00:11:14,620 --> 00:11:17,700

Ladies and gentlemen, this is a misbusters control.

214

00:11:24,200 --> 00:11:26,200

There he goes.

215

00:11:26,260 --> 00:11:28,140

That was beautiful.

216

00:11:28,200 --> 00:11:30,040

Man, that looks terrifying.

217

00:11:37,440 --> 00:11:38,680

All right, predators.

218

00:11:38,740 --> 00:11:39,920

Still to come.

219

00:11:39,980 --> 00:11:41,580

Are you ready?

220

00:11:41,640 --> 00:11:44,740

This is a great day for an experiment.

221

00:11:44,800 --> 00:11:49,940

Ladies and gentlemen, let's crawl.

222

00:11:50,020 --> 00:11:51,680

All right, Reddit, here we go.

223

00:11:51,740 --> 00:11:54,180

We produce the human body temperature food.

224

00:11:55,760 --> 00:11:57,020

Whoa!

225

00:11:58,560 --> 00:11:59,920

The Internet called,

226

00:11:59,980 --> 00:12:01,860

Mythbusters Delivered.

227

00:12:01,920 --> 00:12:03,860

That was awesome.

228

00:12:03,920 --> 00:12:05,360

I love my job.

229

00:12:11,600 --> 00:12:13,600

From the very beginning,

230

00:12:13,680 --> 00:12:17,600

fan feedback has been integral to the Mythbusters MO.

231

00:12:18,680 --> 00:12:20,440

No more car!

232

00:12:20,520 --> 00:12:22,140

In this final season,

233

00:12:22,220 --> 00:12:25,980

it's come full circle with a Reddit special.

234

00:12:26,060 --> 00:12:27,860

We are starting with what's called an AMA

235

00:12:27,920 --> 00:12:29,920

and ask me anything in which I log into Reddit.

236

00:12:29,980 --> 00:12:31,760

That's the best question ever.

237

00:12:31,820 --> 00:12:34,420

And take open questions from the entire user base.

238

00:12:34,500 --> 00:12:36,260

The result?

239

00:12:36,320 --> 00:12:38,060

It's a huge challenge.

240

00:12:38,120 --> 00:12:39,620

The result?

241

00:12:39,680 --> 00:12:41,620

Can an inflatable hamster ball

242

00:12:41,680 --> 00:12:44,120

save Buster from a thousand-foot fall?

243

00:12:47,160 --> 00:12:49,160

I think he might have pooped himself.

244

00:12:49,220 --> 00:12:52,460

All right, so for our control, Buster's dead.

245

00:12:52,540 --> 00:12:54,540

Most importantly, the sensors worked,

246

00:12:54,600 --> 00:12:56,700

and if they worked in this case,

247

00:12:56,760 --> 00:12:58,900

they'll work inside the inflatable.

248

00:12:58,980 --> 00:13:01,540

Every single shock watch was tripped,

249

00:13:01,600 --> 00:13:04,740

with a red line indicating a lethal impact.

250

00:13:04,800 --> 00:13:06,340

And no wonder,

251

00:13:06,360 --> 00:13:08,340

the math says Buster hit the ground

252

00:13:08,400 --> 00:13:11,800

at an estimated 120 miles per hour.

253

00:13:11,860 --> 00:13:14,300

So bring on the ball.

254

00:13:14,360 --> 00:13:16,700

We're getting Buster into this inflatable

255

00:13:16,760 --> 00:13:19,840

and getting him all hooked up and rigged on the helicopter.

256

00:13:19,900 --> 00:13:22,640

Turns out there's nothing I can't find a lazier way to do.

257

00:13:22,700 --> 00:13:26,080

A little more involved than just chucking him in the chopper.

258

00:13:26,140 --> 00:13:28,080

It's gonna be tricky.

259

00:13:33,140 --> 00:13:35,120

That's the coolest thing I've ever seen him do.

260

00:13:35,140 --> 00:13:37,040

Now to insert Buster,

261

00:13:37,120 --> 00:13:41,420

who is once again covered in data collection shock watches.

262

00:13:41,480 --> 00:13:42,960

All right.

263

00:13:43,020 --> 00:13:44,460

There are a couple things to consider

264

00:13:44,520 --> 00:13:45,660

if you're talking about the potential

265

00:13:45,720 --> 00:13:47,660

for one of these inflatable balls to save your life.

266

00:13:47,720 --> 00:13:49,660

Come on, Buster! Hold on!

267

00:13:49,720 --> 00:13:52,460

The first is the cushioning. It'll help.

268

00:13:52,520 --> 00:13:55,000

The second is its terminal velocity,

269

00:13:55,060 --> 00:13:58,200

and that's determined by its surface area and its weight.

270

00:13:58,260 --> 00:14:00,700

Ah! Ah!

271

00:14:00,760 --> 00:14:02,440

Yes!

272

00:14:02,500 --> 00:14:03,680

Come on, Buster!

273

00:14:03,700 --> 00:14:05,200

Okay, wait.

274

00:14:05,280 --> 00:14:08,540

A feather has more surface area than a ball bearing

275

00:14:08,600 --> 00:14:11,680

of the same weight, and so it's gonna fall slower.

276

00:14:11,740 --> 00:14:14,680

I think... Oh!

277

00:14:14,740 --> 00:14:16,280

Yeah? Stop.

278

00:14:16,340 --> 00:14:19,280

Okay. Just seemed like too much fun to not keep doing that.

279

00:14:19,360 --> 00:14:21,420

We know that Buster by himself

280

00:14:21,480 --> 00:14:24,620

is gonna fall at about 120-some miles per hour.

281

00:14:24,680 --> 00:14:26,820

We'd estimate that the ball, however,

282

00:14:26,880 --> 00:14:29,860

is gonna fall at about 50 miles per hour.

283

00:14:29,920 --> 00:14:31,360

There we go!

284

00:14:31,420 --> 00:14:32,960

There we go!

285

00:14:32,980 --> 00:14:35,240

Whether it's enough or not to save your life,

286

00:14:35,300 --> 00:14:36,540

we don't know yet.

287

00:14:36,600 --> 00:14:38,000

That was awesome.

288

00:14:38,060 --> 00:14:39,300

Who knew that that was gonna be

289

00:14:39,360 --> 00:14:41,300

one of the hardest parts of this story to do?

290

00:14:41,380 --> 00:14:43,640

There we go.

291

00:14:43,700 --> 00:14:48,880

With Buster poised, Adam takes his bird's eye seat.

292

00:14:48,940 --> 00:14:51,980

Hey! We're in.

293

00:14:52,040 --> 00:14:54,920

All right. Awesome.

294

00:14:54,980 --> 00:14:57,960

The ball is rigged to be released from the cockpit.

295

00:14:58,020 --> 00:14:59,620

There we go.

296

00:14:59,680 --> 00:15:02,020

Stand by for a little bit of time.

297

00:15:02,040 --> 00:15:04,120

Stand by for a lift off.

298

00:15:04,180 --> 00:15:06,120

All right.

299

00:15:10,120 --> 00:15:11,620

All right. This is how this is gonna work.

300

00:15:11,700 --> 00:15:13,260

Buster, inside the hamster ball,

301

00:15:13,320 --> 00:15:16,700

will be hanging below this helicopter on a tether.

302

00:15:22,860 --> 00:15:24,500

Now, because this beautiful machine

303

00:15:24,560 --> 00:15:25,940

is made for lifting and hauling,

304

00:15:26,000 --> 00:15:28,380

it's got a quick release on its underside.

305

00:15:28,440 --> 00:15:30,740

All right. Here we go.

306

00:15:30,760 --> 00:15:33,560

So once we fly up to 1,000 feet,

307

00:15:33,640 --> 00:15:35,940

we're going to pull that quick release, drop Buster,

308

00:15:36,000 --> 00:15:39,340

and I'll be able to watch his fall from right here,

309

00:15:39,400 --> 00:15:41,840

looking down.

310

00:15:41,900 --> 00:15:43,580

What a lovely day.

311

00:15:43,640 --> 00:15:46,840

What a lovely day.

312

00:15:46,920 --> 00:15:49,420

This may seem like all fun and games,

313

00:15:49,480 --> 00:15:52,580

but actually, we've got some serious concerns here.

314

00:15:52,660 --> 00:15:54,360

We've got a lot of wind.

315

00:15:54,420 --> 00:15:57,720

We've got a long rope and a helicopter.

316

00:15:57,740 --> 00:16:01,180

Now, if something goes where it's not supposed to go,

317

00:16:01,240 --> 00:16:03,320

we could be in serious trouble.

318

00:16:03,380 --> 00:16:06,780

Once again, drift is a dangerous logistical factor,

319

00:16:06,860 --> 00:16:11,020

but experimentally, the key variable is speed on impact,

320

00:16:11,100 --> 00:16:14,400

and the drop conditions are identical to the control.

321

00:16:18,160 --> 00:16:25,200

Three, two, one.

322

00:16:25,280 --> 00:16:27,300

There it goes.

323

00:16:27,320 --> 00:16:28,820

Oh.

324

00:16:36,400 --> 00:16:37,700

Boom.

325

00:16:37,760 --> 00:16:39,100

Ha-ha-ha.

326

00:16:41,700 --> 00:16:45,000

I tell you one thing, Buster seems like he's a lot better off

327

00:16:45,080 --> 00:16:47,140

than he was without that ball.

328

00:16:47,220 --> 00:16:49,440

Let's go see how it turned out.

329

00:16:49,520 --> 00:16:50,620

Here it is, Reddit,

330

00:16:50,680 --> 00:16:52,780

to the reduction in terminal velocity

331

00:16:52,860 --> 00:16:55,380

and a giant airbag save Buster.

332

00:16:57,920 --> 00:17:01,920

Dead, dead, dead, dead, dead.

333

00:17:02,000 --> 00:17:03,960

Oh, very dead.

334

00:17:04,040 --> 00:17:05,760

Wow, that's the last time I jumped out of an airplane

335

00:17:05,840 --> 00:17:07,260

to one of these things.

336

00:17:07,340 --> 00:17:09,640

Three, two, one.

337

00:17:09,700 --> 00:17:10,640

Release.

338

00:17:10,700 --> 00:17:14,040

And away you go.

339

00:17:14,100 --> 00:17:16,480

Well, Buster didn't survive,

340

00:17:16,540 --> 00:17:17,880

and when you think about it,

341

00:17:17,940 --> 00:17:20,680

the thickness of the cushion here is,

342

00:17:20,740 --> 00:17:25,780

well, it's kind of like a nice, soft mattress.

343

00:17:25,800 --> 00:17:30,200

And if you were to drop from 1,000 feet to land on your mattress,

344

00:17:30,280 --> 00:17:33,440

I don't think you'd survive either.

345

00:17:33,520 --> 00:17:35,080

Sorry, Buster.

346

00:17:35,140 --> 00:17:37,080

Even at 50 miles per hour,

347

00:17:37,140 --> 00:17:40,120

the cushion of air couldn't slow his deceleration enough

348

00:17:40,180 --> 00:17:43,420

to prevent a fatal impact.

349

00:17:43,480 --> 00:17:45,820

But the guys can't leave it there.

350

00:17:45,880 --> 00:17:49,060

They have one more sleeve and one more trick.

351

00:17:49,120 --> 00:17:50,520

I seem to remember.

352

00:17:50,600 --> 00:17:53,000

Not in the distant past.

353

00:17:53,020 --> 00:17:55,020

Bubble packaging.

354

00:17:55,100 --> 00:17:57,320

Did a pretty good job of breaking my ball.

355

00:18:00,560 --> 00:18:01,560

I'm OK.

356

00:18:04,100 --> 00:18:06,400

Yep, using their extensive experience

357

00:18:06,460 --> 00:18:09,600

with crash-testing dummies

358

00:18:09,660 --> 00:18:11,200

and Buster,

359

00:18:11,260 --> 00:18:13,100

the guys have a big job ahead,

360

00:18:13,160 --> 00:18:14,860

filling the ball with their favorite,

361

00:18:14,940 --> 00:18:16,460

shock-resistant material.

362

00:18:18,040 --> 00:18:20,360

Meanwhile, it's back to the shop to find out

363

00:18:20,380 --> 00:18:24,820

if a thermal camera really can catch a rear-guard action in action.

364

00:18:26,760 --> 00:18:31,160

Well, I just polished off my fourth pint of carbonated water,

365

00:18:31,220 --> 00:18:33,120

and nothing is happening.

366

00:18:33,200 --> 00:18:36,100

But this is why I started building the machine in the first place.

367

00:18:36,160 --> 00:18:39,300

All right, Mr. Ironman, I got the correct temperature.

368

00:18:39,360 --> 00:18:41,500

With Adam's machine at body temperature...

369

00:18:43,360 --> 00:18:45,600

That thing looks like a big **** that's farting.

370

00:18:46,600 --> 00:18:50,940

Reddit, stand by to have your curiosity cured.

371

00:18:51,000 --> 00:18:52,740

All right, Reddit, here we go.

372

00:18:52,800 --> 00:18:55,240

I'm gonna produce the human body temperature pood

373

00:18:55,300 --> 00:18:58,000

on the thermal imaging camera and see if it registers.

374

00:18:58,080 --> 00:19:01,300

Here we go. Three, two, one.

375

00:19:08,180 --> 00:19:10,080

Anything? This is the mix that's killing me.

376

00:19:10,140 --> 00:19:11,640

Nothing.

377

00:19:13,420 --> 00:19:14,780

Nothing. Nothing.

378

00:19:14,780 --> 00:19:15,780

Nothing.

379

00:19:17,540 --> 00:19:18,740

It sounds great, though.

380

00:19:18,800 --> 00:19:20,140

I know! Just saying.

381

00:19:23,540 --> 00:19:26,340

It might be music to Jamie's ears,

382

00:19:26,400 --> 00:19:27,940

but even in close-up...

383

00:19:28,000 --> 00:19:29,000

Here we go.

384

00:19:31,140 --> 00:19:32,840

This myth is looking busted.

385

00:19:35,880 --> 00:19:36,880

Nothing at all.

386

00:19:41,380 --> 00:19:44,340

I can see the nozzles actually heating up quite a bit

387

00:19:44,360 --> 00:19:45,700

from the air going through it.

388

00:19:45,760 --> 00:19:46,760

Right.

389

00:19:46,840 --> 00:19:49,960

But there's no indication of any kind of gas coming out of it.

390

00:19:50,040 --> 00:19:51,040

Okay.

391

00:19:52,840 --> 00:19:56,140

So just to recap, we built what I consider to be

392

00:19:56,200 --> 00:19:58,700

the most advanced artificial farting device

393

00:19:58,760 --> 00:20:01,540

yet devised by nature and the skill of man.

394

00:20:01,600 --> 00:20:02,600

Ah!

395

00:20:03,560 --> 00:20:06,500

And if we can't see a fart coming out of this thing,

396

00:20:06,560 --> 00:20:09,000

well, it's just not gonna happen.

397

00:20:10,260 --> 00:20:12,400

Yep, and it's down to density.

398

00:20:12,520 --> 00:20:16,020

Low density gas emits almost no infrared light.

399

00:20:17,020 --> 00:20:19,520

So how exactly was the original faked?

400

00:20:20,560 --> 00:20:23,860

Adam fires up an old black and white camera for a demo.

401

00:20:24,660 --> 00:20:27,400

A tube and some freezing cold compressed air

402

00:20:27,460 --> 00:20:30,020

often used in electronics for making circuits cold.

403

00:20:30,100 --> 00:20:31,100

Watch what it does here.

404

00:20:31,160 --> 00:20:33,200

Thermal imaging camera, here we come.

405

00:20:33,260 --> 00:20:34,620

Oh, yeah, look at that.

406

00:20:34,700 --> 00:20:36,320

That looks exact... Oh, woo!

407

00:20:36,400 --> 00:20:37,860

Hey, that's cold.

408

00:20:37,920 --> 00:20:40,360

Woo! Don't try that at home.

409

00:20:40,360 --> 00:20:44,280

Of course, eagle-eyed viewers will have noted the flaw in the fake.

410

00:20:44,360 --> 00:20:47,320

Like Adam just showed, the gas in the viral video

411

00:20:47,380 --> 00:20:49,320

was colder than the surrounding atmosphere.

412

00:20:49,380 --> 00:20:50,820

That's because it was dark.

413

00:20:50,880 --> 00:20:53,580

It should be warmer than the surrounding atmosphere.

414

00:20:53,660 --> 00:20:56,180

So if you're gonna cheat it, you need steam.

415

00:20:57,160 --> 00:20:58,160

Like this.

416

00:20:59,580 --> 00:21:01,660

So, sorry, guys, I gotta tell ya.

417

00:21:01,720 --> 00:21:03,320

You got it all basquered.

418

00:21:11,360 --> 00:21:14,360

Up next, let's get ready to Rochambeau.

419

00:21:14,420 --> 00:21:16,360

It's Rocky vs. Paper.

420

00:21:17,360 --> 00:21:18,360

Oh!

421

00:21:24,360 --> 00:21:26,860

You look hot. I mean, as in warm.

422

00:21:26,920 --> 00:21:28,360

I've just finished my workout.

423

00:21:29,620 --> 00:21:31,620

Yeah. So what's next?

424

00:21:31,680 --> 00:21:33,180

Well, you know on Mythbusters,

425

00:21:33,260 --> 00:21:35,680

we've done a whole bunch of idiomatic phrases, right?

426

00:21:35,760 --> 00:21:37,360

More than you could shake a stick at.

427

00:21:37,420 --> 00:21:38,980

Nice. See what you did there.

428

00:21:38,980 --> 00:21:41,980

Well, one of the best suggestions to come through our Reddit inbox

429

00:21:42,040 --> 00:21:43,440

was the phrase,

430

00:21:43,500 --> 00:21:45,700

you can't punch your way out of a paper bag.

431

00:21:45,780 --> 00:21:47,380

So the myth is that it's impossible

432

00:21:47,440 --> 00:21:49,400

to punch your way out of a paper bag?

433

00:21:49,480 --> 00:21:52,480

No, because the phrase is always spoken in context.

434

00:21:52,540 --> 00:21:54,140

It means when you say to someone,

435

00:21:54,200 --> 00:21:55,600

you can't punch your way out of a paper bag,

436

00:21:55,680 --> 00:21:57,600

you mean that they're a weakling, ergo.

437

00:21:57,680 --> 00:21:59,980

The myth is that punching your way out of a paper bag

438

00:22:00,040 --> 00:22:01,780

should be trivially easy.

439

00:22:01,840 --> 00:22:03,480

Well, you're not gonna fit into a paper bag.

440

00:22:03,540 --> 00:22:05,600

What? So you gotta make me a man-sized paper bag

441

00:22:05,680 --> 00:22:07,100

box my way out of?

442

00:22:07,180 --> 00:22:08,780

You could still rip your way out, though.

443

00:22:08,780 --> 00:22:10,280

Right. You've got to make it big enough

444

00:22:10,340 --> 00:22:13,080

where only a punch is gonna get me out of that bag.

445

00:22:13,140 --> 00:22:14,440

Oh, I'm totally feeling it.

446

00:22:14,500 --> 00:22:15,900

Bring it on. Come on, paper.

447

00:22:15,980 --> 00:22:17,780

Oh, yeah.

448

00:22:17,840 --> 00:22:19,480

You want a little...

449

00:22:19,540 --> 00:22:20,640

Where'd Jamie go?

450

00:22:20,700 --> 00:22:21,740

Come on.

451

00:22:21,800 --> 00:22:22,740

Jamie?

452

00:22:22,800 --> 00:22:24,580

He hit the shop for some science

453

00:22:24,640 --> 00:22:29,000

on why this idiom may not be as cut and dried as it seems.

454

00:22:29,080 --> 00:22:32,380

Well, the thing is that a punch involves two components.

455

00:22:32,440 --> 00:22:34,900

One is the fist, which is moving,

456

00:22:34,980 --> 00:22:37,880

and the other is the target, which is not.

457

00:22:37,880 --> 00:22:40,540

Now, if the target actually starts to move,

458

00:22:40,600 --> 00:22:42,080

then everything's different.

459

00:22:42,140 --> 00:22:43,600

That's a game changer.

460

00:22:43,680 --> 00:22:46,340

To demonstrate the difference between a stationary

461

00:22:46,400 --> 00:22:50,040

and a moving target, Adam sets up a load cell,

462

00:22:50,100 --> 00:22:53,000

a device that registers force in pounds.

463

00:22:53,080 --> 00:22:54,980

Three, two, one.

464

00:22:55,040 --> 00:22:56,600

Two, three.

465

00:22:56,680 --> 00:22:58,600

Ha-ha-ha-ha-ha.

466

00:22:58,680 --> 00:22:59,680

Look at that.

467

00:22:59,740 --> 00:23:02,500

About 35 pounds forced to push through that.

468

00:23:02,580 --> 00:23:03,680

Yeah.

469

00:23:03,740 --> 00:23:05,040

This could have totally done it.

470

00:23:05,100 --> 00:23:06,540

Woo-hoo-hoo.

471

00:23:06,540 --> 00:23:07,600

Yep.

472

00:23:07,660 --> 00:23:10,000

Anyone could apply that amount of force.

473

00:23:10,060 --> 00:23:11,100

But...

474

00:23:11,160 --> 00:23:13,060

Loose piece of paper, load cell.

475

00:23:13,140 --> 00:23:15,500

Ha-ha-ha.

476

00:23:15,560 --> 00:23:17,760

Point five pounds of force.

477

00:23:17,840 --> 00:23:19,900

If the paper is able to move,

478

00:23:19,960 --> 00:23:24,560

Adam can't register anything close to the required 35 pounds.

479

00:23:25,840 --> 00:23:26,860

That is the key.

480

00:23:26,940 --> 00:23:28,700

The paper has to be able to move.

481

00:23:28,760 --> 00:23:29,800

Allow me to explain.

482

00:23:29,860 --> 00:23:31,260

Graphics, please.

483

00:23:31,340 --> 00:23:33,640

If the bag is too small, less than an arm span,

484

00:23:33,640 --> 00:23:37,240

it would be way easy to just hold it in place and rip it.

485

00:23:37,300 --> 00:23:40,900

But if the diameter is greater than my arm span, say, six feet,

486

00:23:40,960 --> 00:23:43,400

then the paper could theoretically accelerate

487

00:23:43,460 --> 00:23:44,940

out of the way of my punch,

488

00:23:45,000 --> 00:23:47,300

and it might not be possible for me to apply

489

00:23:47,360 --> 00:23:50,360

the requisite 35 pounds of force.

490

00:23:50,440 --> 00:23:54,200

Yep, for this myth, size really does matter.

491

00:23:54,260 --> 00:23:58,500

Okay, time to build our own giant shopping bag.

492

00:23:58,560 --> 00:24:02,500

I'm gonna keep it in exactly the same proportions of this bag.

493

00:24:02,520 --> 00:24:04,520

It's just gonna be much bigger.

494

00:24:04,600 --> 00:24:06,800

Ha-ha-ha.

495

00:24:06,860 --> 00:24:07,860

There we go.

496

00:24:07,920 --> 00:24:09,860

That's one big-ass grocery bag.

497

00:24:09,920 --> 00:24:11,420

Ha-ha.

498

00:24:11,500 --> 00:24:13,900

Yeah.

499

00:24:13,960 --> 00:24:16,100

The paper opponent is prepped.

500

00:24:18,660 --> 00:24:23,940

But not only does Adam have no idea how to throw a punch,

501

00:24:24,000 --> 00:24:25,940

after removing the muscle suit,

502

00:24:26,000 --> 00:24:28,540

it's clear he's seriously out of shape.

503

00:24:28,540 --> 00:24:30,540

All right.

504

00:24:30,600 --> 00:24:33,880

Cue the training sequence.

505

00:24:33,940 --> 00:24:36,380

Now, if I'm gonna punch my way out of a paper bag,

506

00:24:36,440 --> 00:24:39,180

it behooves me not to underestimate my opponent

507

00:24:39,240 --> 00:24:42,940

and learn about punching from a professional standpoint.

508

00:24:43,020 --> 00:24:44,680

Looks good. Let's get glipped up.

509

00:24:44,740 --> 00:24:45,940

All right, let's see what you got.

510

00:24:46,020 --> 00:24:47,180

Cool.

511

00:24:47,260 --> 00:24:49,260

This is terrifying.

512

00:24:49,320 --> 00:24:51,320

And my guidedness will be Paul Wade.

513

00:24:51,380 --> 00:24:53,560

He's a former Northern Island kickboxing champion,

514

00:24:53,620 --> 00:24:55,560

San Francisco Golden Gloves champion,

515

00:24:55,580 --> 00:24:58,320

and he is the owner of the Third Street boxing gym

516

00:24:58,380 --> 00:25:01,020

right around the corner from the Mythbusters shop.

517

00:25:02,580 --> 00:25:04,320

That's it.

518

00:25:04,380 --> 00:25:06,360

Paul is going to show me a little bit about

519

00:25:06,420 --> 00:25:07,960

what punching is really about.

520

00:25:08,020 --> 00:25:10,660

See what you got. Come on.

521

00:25:10,720 --> 00:25:13,760

But first, he needs to get a gauge of just how green

522

00:25:13,820 --> 00:25:16,460

and useless I am in the ring.

523

00:25:16,520 --> 00:25:19,960

Oh! I haven't told him yet that the last fist fight I had,

524

00:25:20,020 --> 00:25:21,760

I was in the third grade.

525

00:25:21,820 --> 00:25:23,400

Sorry, JP.

526

00:25:23,440 --> 00:25:26,740

Time. What we got to do is get a little bit of a setup.

527

00:25:26,800 --> 00:25:28,280

One, two, three.

528

00:25:28,340 --> 00:25:31,840

Boxing, like any martial art, is highly technical.

529

00:25:31,920 --> 00:25:35,180

Hip rotation. Exactly. Good balance.

530

00:25:35,240 --> 00:25:37,440

And delivering a powerful punch...

531

00:25:37,520 --> 00:25:39,080

Pop! Hit into it.

532

00:25:39,160 --> 00:25:40,820

...is as much to do with form...

533

00:25:40,880 --> 00:25:42,080

All right.

534

00:25:42,160 --> 00:25:43,760

...as it is with speed and strength.

535

00:25:43,820 --> 00:25:46,860

Knowledge Adam didn't have until today.

536

00:25:46,920 --> 00:25:48,960

Straight arm.

537

00:25:49,020 --> 00:25:51,960

Engineers. Good. Turn your hip.

538

00:25:52,700 --> 00:25:54,700

Jab. Slip left. Good.

539

00:25:54,760 --> 00:25:56,260

Not bad. Not bad. Not bad.

540

00:25:56,340 --> 00:25:59,000

It's been a long, hard session.

541

00:25:59,060 --> 00:26:01,600

But now Adam can at least start the experiment

542

00:26:01,660 --> 00:26:04,740

with the ability to throw an entry-level punch.

543

00:26:07,740 --> 00:26:09,440

A weapon coming through.

544

00:26:09,500 --> 00:26:11,180

Yes. Jump.

545

00:26:12,680 --> 00:26:15,520

So it's back to base to see how he measures up.

546

00:26:15,520 --> 00:26:19,560

Remember, it took 35 pounds of force

547

00:26:19,620 --> 00:26:22,060

to pierce stationary paper.

548

00:26:26,500 --> 00:26:28,300

Nice. Paper.

549

00:26:28,360 --> 00:26:30,340

593 pounds of force.

550

00:26:30,400 --> 00:26:32,600

That's what you got coming to you.

551

00:26:34,680 --> 00:26:39,120

Question is, will paper beat Adam's rock-like fists?

552

00:26:39,180 --> 00:26:41,480

Simply by floating away.

553

00:26:41,480 --> 00:26:43,320

But before the big fight,

554

00:26:43,380 --> 00:26:45,820

it's round three for Buster's balls.

555

00:26:45,880 --> 00:26:48,020

Boom. Ha-ha-ha.

556

00:26:48,080 --> 00:26:50,660

Yes, it's a second inflatable hamster ball

557

00:26:50,720 --> 00:26:55,420

ready for a third drop for a somewhat willing Buster.

558

00:26:55,500 --> 00:26:58,500

Except this time, instead of being alone inside the ball,

559

00:26:58,560 --> 00:27:02,960

he is going to be protected with inflatable bubble packaging.

560

00:27:03,040 --> 00:27:04,840

That's it. Like a pump.

561

00:27:04,900 --> 00:27:06,800

We're going to be able to do that.

562

00:27:06,880 --> 00:27:08,880

We're going to be able to do that.

563

00:27:08,900 --> 00:27:11,840

We're going to be able to do that with the plastic packaging.

564

00:27:11,920 --> 00:27:13,820

That's it. Like a pump.

565

00:27:13,880 --> 00:27:16,320

We're going to shuffle a bunch of this in there with Buster

566

00:27:16,380 --> 00:27:19,920

to see if it will protect him from a very high fall.

567

00:27:19,980 --> 00:27:21,760

I actually think it kind of might.

568

00:27:23,820 --> 00:27:25,920

Okay, so Buster has a nice little cushion

569

00:27:26,000 --> 00:27:30,360

of inflatable packaging, and he's ready to ship.

570

00:27:30,440 --> 00:27:33,640

Our workhorse of a helicopter is about to take off again.

571

00:27:33,700 --> 00:27:37,100

This time in the passenger seat, Mr. Heineman, fun fact.

572

00:27:37,100 --> 00:27:40,200

There are three non-pilots in the passenger seat.

573

00:27:40,260 --> 00:27:41,860

Carrie Byron.

574

00:27:41,940 --> 00:27:43,660

We're now heading over to the drop zone.

575

00:27:43,740 --> 00:27:46,840

Adam Savage, that's me, and Jamie Heineman.

576

00:27:46,900 --> 00:27:49,300

Uh, I said, finally, that's a hotel. We're lifting up.

577

00:27:49,380 --> 00:27:51,880

It's a myth Buster party.

578

00:27:51,940 --> 00:27:53,540

The big dog is up.

579

00:27:53,620 --> 00:27:55,880

The Heineman is riding shotgun,

580

00:27:55,940 --> 00:27:58,580

and Buster covered in shock watches,

581

00:27:58,660 --> 00:28:01,780

once again wishes he'd never applied for the job.

582

00:28:01,860 --> 00:28:03,120

Good.

583

00:28:03,180 --> 00:28:04,520

He's looking nice on the table.

584

00:28:04,580 --> 00:28:06,520

Ha-ha-ha.

585

00:28:06,520 --> 00:28:10,120

That's the coolest view ever.

586

00:28:10,180 --> 00:28:11,680

Look at that.

587

00:28:16,260 --> 00:28:20,300

Dude, we've got two helicopters in the air.

588

00:28:20,360 --> 00:28:22,400

Buster is wrapped in bubble packaging

589

00:28:22,460 --> 00:28:24,460

in the middle of an inflatable hamster ball,

590

00:28:24,540 --> 00:28:27,100

and we're about to drop him a thousand feet onto a runway

591

00:28:27,160 --> 00:28:28,940

to find out if he survives.

592

00:28:31,500 --> 00:28:33,380

The helicopter is at height.

593

00:28:33,440 --> 00:28:35,540

Okay, we're gonna count down.

594

00:28:36,540 --> 00:28:39,800

Two, one, here it goes.

595

00:28:39,860 --> 00:28:41,600

Oh, there it goes.

596

00:28:41,680 --> 00:28:43,000

It's dropping.

597

00:28:43,080 --> 00:28:44,540

Oh, it's beautiful.

598

00:28:47,100 --> 00:28:49,140

Oh, oh, oh.

599

00:28:49,220 --> 00:28:51,180

Ha-ha-ha-ha.

600

00:28:57,020 --> 00:28:58,760

Ha-ha-ha-ha.

601

00:28:58,820 --> 00:29:01,220

Oh, that is awesome.

602

00:29:05,560 --> 00:29:07,560

Come on, Buster.

603

00:29:07,640 --> 00:29:08,640

Let's see how you did.

604

00:29:08,700 --> 00:29:10,000

Oh.

605

00:29:10,080 --> 00:29:12,540

Oh, the news is bad.

606

00:29:13,600 --> 00:29:15,440

Now it's tripped.

607

00:29:15,500 --> 00:29:17,080

Now it's tripped.

608

00:29:17,140 --> 00:29:19,180

Ah.

609

00:29:19,240 --> 00:29:21,980

Tripped, tripped, tripped.

610

00:29:24,060 --> 00:29:25,480

He's dead, Jim.

611

00:29:25,560 --> 00:29:27,120

He's dead.

612

00:29:27,180 --> 00:29:29,320

All right, it's judgment time.

613

00:29:29,380 --> 00:29:32,220

An inflatable hamster ball is at the top of the sky.

614

00:29:32,240 --> 00:29:33,940

Not so much. It's busted.

615

00:29:34,020 --> 00:29:36,080

It's totally busted. Let's get out of here.

616

00:29:52,140 --> 00:29:53,140

Up next.

617

00:29:53,220 --> 00:29:54,640

That bag is nothing.

618

00:29:54,720 --> 00:29:55,820

Ah.

619

00:29:55,880 --> 00:29:58,180

It's the thriller in a manila envelope.

620

00:29:58,260 --> 00:29:59,980

The story of the manila.

621

00:29:59,980 --> 00:30:01,940

The thriller in a manila envelope.

622

00:30:02,020 --> 00:30:03,020

All right.

623

00:30:03,080 --> 00:30:04,080

All right.

624

00:30:19,660 --> 00:30:24,940

Ladies and gentlemen, Adam the killer who's the nailer.

625

00:30:25,000 --> 00:30:28,000

Seven.

626

00:30:28,020 --> 00:30:31,860

And in the blue corner, weighing in at...

627

00:30:31,920 --> 00:30:33,760

two and a half pounds,

628

00:30:33,840 --> 00:30:38,840

is the reigning champion, paper bag.

629

00:30:41,600 --> 00:30:45,440

Ladies and gentlemen, let's crumple.

630

00:30:49,740 --> 00:30:51,240

For the myth to hold up,

631

00:30:51,320 --> 00:30:54,420

Adam has to easily punch his way out of the bag.

632

00:30:54,480 --> 00:30:56,020

That bag is nothing. It's nothing.

633

00:30:56,080 --> 00:30:57,580

Get out there and rip that off your hand.

634

00:30:57,600 --> 00:30:58,600

Yeah!

635

00:30:58,680 --> 00:31:01,800

To measure such a subjective parameter,

636

00:31:01,880 --> 00:31:04,540

Adam will be timed and repeat the experiment

637

00:31:04,620 --> 00:31:06,540

over three rounds.

638

00:31:06,620 --> 00:31:08,120

Go get him, killer.

639

00:31:08,180 --> 00:31:12,420

Before assessing effort versus expectation.

640

00:31:12,480 --> 00:31:13,480

All right.

641

00:31:13,560 --> 00:31:14,560

Ha, ha.

642

00:31:17,760 --> 00:31:19,560

All right, Jamie, I'm ready.

643

00:31:19,620 --> 00:31:20,620

Round one.

644

00:31:28,580 --> 00:31:30,580

Ha, ha, ha.

645

00:31:35,660 --> 00:31:36,660

Ha, ha, ha.

646

00:31:36,720 --> 00:31:38,660

20 seconds in.

647

00:31:38,720 --> 00:31:42,200

Despite taking a pounding, the bag's still standing.

648

00:31:45,860 --> 00:31:46,860

Look.

649

00:31:46,940 --> 00:31:49,140

Paul showed me how to punch it.

650

00:31:49,200 --> 00:31:51,600

And I am not holding back.

651

00:31:53,680 --> 00:31:55,940

I am giving it everything that I've got.

652

00:31:55,960 --> 00:31:58,740

And it is surprisingly difficult.

653

00:31:58,800 --> 00:32:02,380

Adam is punching with almost 600 pounds of force.

654

00:32:02,440 --> 00:32:05,880

But so far, each punch is not applying enough pressure

655

00:32:05,940 --> 00:32:07,680

to pierce the paper.

656

00:32:07,740 --> 00:32:09,480

It's surprisingly violent.

657

00:32:09,540 --> 00:32:10,540

Oh!

658

00:32:10,620 --> 00:32:12,380

Every time Adam hits the bag,

659

00:32:12,460 --> 00:32:16,460

it makes this thunder-like noise.

660

00:32:16,520 --> 00:32:17,920

It's a sharp crack.

661

00:32:18,000 --> 00:32:20,720

A lot of reverberation.

662

00:32:20,800 --> 00:32:21,800

It's frightening.

663

00:32:21,860 --> 00:32:22,860

Oh!

664

00:32:22,920 --> 00:32:23,920

Oh!

665

00:32:23,940 --> 00:32:25,940

Ha, ha, ha, ha!

666

00:32:26,020 --> 00:32:27,480

Woo!

667

00:32:27,540 --> 00:32:29,380

And your face back!

668

00:32:29,460 --> 00:32:30,480

Ah!

669

00:32:30,560 --> 00:32:31,480

Ah!

670

00:32:31,560 --> 00:32:32,980

Woo!

671

00:32:33,060 --> 00:32:35,060

That was harder than I thought it would be.

672

00:32:35,120 --> 00:32:38,360

Yep, the myth suggests that it should be a trivial task.

673

00:32:38,420 --> 00:32:40,860

But Adam found it reasonably difficult

674

00:32:40,920 --> 00:32:43,160

until just over the minute mark,

675

00:32:43,240 --> 00:32:47,000

the paper wrinkled, fatigued, and ripped.

676

00:32:47,060 --> 00:32:48,700

With a benchmark laid down.

677

00:32:48,760 --> 00:32:49,600

Come on.

678

00:32:49,660 --> 00:32:51,540

Q round two.

679

00:32:51,600 --> 00:32:53,500

Awesome.

680

00:32:53,500 --> 00:32:54,460

Oh!

681

00:32:54,520 --> 00:32:55,520

Oh!

682

00:32:55,600 --> 00:32:56,600

Oh!

683

00:32:56,660 --> 00:32:57,660

Oh!

684

00:32:57,740 --> 00:32:58,740

Oh!

685

00:32:58,800 --> 00:32:59,800

Oh!

686

00:32:59,860 --> 00:33:00,860

Oh!

687

00:33:00,940 --> 00:33:05,340

Once again, it's clearly not a simple matter.

688

00:33:05,400 --> 00:33:06,400

Hold on.

689

00:33:06,480 --> 00:33:07,480

Where is it?

690

00:33:07,540 --> 00:33:08,540

I lost my glasses.

691

00:33:08,600 --> 00:33:09,600

Hang on.

692

00:33:09,600 --> 00:33:10,600

Got him.

693

00:33:10,680 --> 00:33:13,240

And once again, it takes just over a minute

694

00:33:13,320 --> 00:33:15,940

before the creases and crumples accumulate

695

00:33:16,020 --> 00:33:18,820

to the point where a single punch can break through.

696

00:33:18,880 --> 00:33:19,880

Ah!

697

00:33:19,960 --> 00:33:20,960

Ah!

698

00:33:21,020 --> 00:33:22,720

Ah, ha, ha, ha!

699

00:33:22,720 --> 00:33:23,720

Ah!

700

00:33:23,780 --> 00:33:24,780

Ah!

701

00:33:24,840 --> 00:33:25,840

Ah!

702

00:33:25,920 --> 00:33:26,920

Ah!

703

00:33:26,980 --> 00:33:27,980

Woo!

704

00:33:28,060 --> 00:33:31,560

And when round three yields an almost identical result,

705

00:33:31,620 --> 00:33:32,620

ah!

706

00:33:32,680 --> 00:33:33,680

Ah!

707

00:33:33,760 --> 00:33:34,760

Ah!

708

00:33:34,820 --> 00:33:35,820

Ah!

709

00:33:35,900 --> 00:33:37,360

The final tally is...

710

00:33:37,420 --> 00:33:39,460

Bag zero, Adam three.

711

00:33:39,520 --> 00:33:41,000

But here's the thing.

712

00:33:41,060 --> 00:33:43,000

It took me almost a minute each time

713

00:33:43,060 --> 00:33:45,600

to punch my way out with the gloves on.

714

00:33:45,660 --> 00:33:47,000

So as far as I'm concerned,

715

00:33:47,060 --> 00:33:49,100

the myth is kind of on the fence right now.

716

00:33:49,180 --> 00:33:50,880

I'm not sure exactly how to call it.

717

00:33:50,900 --> 00:33:53,240

But for due diligence, there's one thing we haven't tried,

718

00:33:53,300 --> 00:33:55,340

which is, what if I take these gloves off?

719

00:33:55,400 --> 00:33:56,540

That's what we're gonna do next.

720

00:33:57,920 --> 00:33:59,080

The gloves are off,

721

00:33:59,140 --> 00:34:02,780

and the variable in this experiment is surface area.

722

00:34:02,840 --> 00:34:05,180

The contact area of Adam's knuckles

723

00:34:05,240 --> 00:34:08,580

is considerably smaller than the large padded glove.

724

00:34:11,520 --> 00:34:12,520

All right, Jamie.

725

00:34:12,600 --> 00:34:13,600

Ding!

726

00:34:13,660 --> 00:34:14,660

Woo!

727

00:34:14,720 --> 00:34:15,720

Woo!

728

00:34:15,800 --> 00:34:16,800

Oh!

729

00:34:16,860 --> 00:34:17,860

Ah!

730

00:34:17,940 --> 00:34:18,940

Ah!

731

00:34:19,000 --> 00:34:20,000

Ah!

732

00:34:20,000 --> 00:34:21,000

Ah!

733

00:34:21,060 --> 00:34:22,060

Ah!

734

00:34:22,120 --> 00:34:25,100

A good bare knuckle brown bag beat down.

735

00:34:25,160 --> 00:34:29,000

The same force applied over a smaller surface area

736

00:34:29,060 --> 00:34:31,000

equals a much greater pressure.

737

00:34:31,060 --> 00:34:34,400

And it's pressure that ultimately pierces the paper.

738

00:34:34,480 --> 00:34:36,340

Ladies and gentlemen,

739

00:34:36,400 --> 00:34:39,480

the new paperweight champion of the world,

740

00:34:39,540 --> 00:34:41,540

Adam Savage.

741

00:34:41,620 --> 00:34:42,620

Woo!

742

00:34:42,680 --> 00:34:43,680

Ha ha ha.

743

00:34:43,740 --> 00:34:46,320

The phrase means punching away out of a paper bag

744

00:34:46,380 --> 00:34:48,720

should be easy, and gloves are no.

745

00:34:48,720 --> 00:34:49,720

Ha ha ha.

746

00:34:49,780 --> 00:34:52,180

It is, in fact, reasonably easy.

747

00:34:52,240 --> 00:34:54,720

Therefore, it's myth confirmed.

748

00:34:54,780 --> 00:34:58,320

With three Reddit requests in the bag...

749

00:34:58,380 --> 00:35:00,320

Ha ha ha!

750

00:35:00,380 --> 00:35:03,360

It's back to base for the final fan suggestion

751

00:35:03,420 --> 00:35:04,860

of the final season.

752

00:35:07,320 --> 00:35:09,000

So what do the Redditors have next?

753

00:35:09,060 --> 00:35:10,160

Well, as you can imagine,

754

00:35:10,240 --> 00:35:12,000

there were hundreds upon hundreds of suggestions

755

00:35:12,060 --> 00:35:14,200

of things that we could blow up on this show.

756

00:35:14,260 --> 00:35:18,040

But the most popular votes were for two main categories.

757

00:35:18,060 --> 00:35:20,060

Half the people wanted us to make a glitter bomb.

758

00:35:20,140 --> 00:35:22,340

The other half wanted us to blow up a snu.

759

00:35:22,400 --> 00:35:24,800

I figure we kill two birds with one stone

760

00:35:24,860 --> 00:35:28,400

and do both make a bomb that blows up a snu with glitter in it.

761

00:35:28,460 --> 00:35:29,460

Great.

762

00:35:29,540 --> 00:35:30,540

What's a snu?

763

00:35:30,600 --> 00:35:32,540

This is the snu.

764

00:35:32,600 --> 00:35:35,540

And Reddit has requested their lovable logo

765

00:35:35,600 --> 00:35:38,540

go out in a glitter bomb of glory.

766

00:35:38,600 --> 00:35:41,780

Adam and Jamie are only too happy to oblige.

767

00:35:41,840 --> 00:35:45,940

But will it be the epic Big Bang ending everyone wants?

768

00:35:45,940 --> 00:35:48,600

There's only one place to find out.

769

00:35:48,680 --> 00:35:50,480

Redditors, if you're fans of Mythbusters,

770

00:35:50,540 --> 00:35:53,780

you are even deeper fans of the location in which I am standing,

771

00:35:53,840 --> 00:35:55,980

cleared of brush for 20 or 30 acres

772

00:35:56,040 --> 00:35:58,880

and nestled into the hills of Dublin, California.

773

00:35:58,940 --> 00:36:01,940

This is the Alameda County Sheriff's Department bomb range,

774

00:36:02,020 --> 00:36:04,520

without which it's not too much to say Mythbusters

775

00:36:04,580 --> 00:36:06,420

would not be Mythbusters.

776

00:36:06,480 --> 00:36:09,060

We have been blowing up stuff on this specific range

777

00:36:09,120 --> 00:36:10,720

for more than 10 years,

778

00:36:10,780 --> 00:36:14,820

and it's the perfect place for us to detonate your beloved snu.

779

00:36:14,880 --> 00:36:15,880

All right.

780

00:36:16,940 --> 00:36:19,280

Isn't it kind of ironic that we just had this build?

781

00:36:19,340 --> 00:36:21,820

It was like born yesterday, and today we're killing it?

782

00:36:21,880 --> 00:36:23,780

That's our usual style.

783

00:36:23,840 --> 00:36:26,180

Question is, snu coming through.

784

00:36:26,240 --> 00:36:30,240

How do you make a glitter bomb out of a 2D digital cartoon?

785

00:36:30,320 --> 00:36:32,820

Well, before you blow it up, you blow it up

786

00:36:32,880 --> 00:36:36,820

in order to fill it with glitter, paint, and high explosive.

787

00:36:36,880 --> 00:36:39,480

Wow, that's beautiful.

788

00:36:45,820 --> 00:36:48,280

In the final season countdown,

789

00:36:48,340 --> 00:36:51,820

you, the audience, have racked up some impressive numbers.

790

00:36:53,180 --> 00:36:55,520

In the U.S. alone, you've watched the show

791

00:36:55,580 --> 00:36:57,580

more than 2 billion times.

792

00:36:57,640 --> 00:36:58,640

Seen it.

793

00:36:58,720 --> 00:37:01,480

It's been broadcast in 194 countries

794

00:37:01,540 --> 00:37:04,040

in 116 languages.

795

00:37:04,120 --> 00:37:06,620

Rechazo, tonalidad y la sustituyo.

796

00:37:06,680 --> 00:37:09,980

But the most important number is 240.

797

00:37:10,040 --> 00:37:11,820

¿Venen que es el suelo, Peck?

798

00:37:11,880 --> 00:37:12,880

C4.

799

00:37:12,940 --> 00:37:13,940

Oh.

800

00:37:13,940 --> 00:37:14,940

Oh, cool.

801

00:37:15,000 --> 00:37:17,940

The Myths suggested by you.

802

00:37:18,000 --> 00:37:19,940

Well, there's your problem.

803

00:37:20,000 --> 00:37:21,940

Thanks for the support.

804

00:37:22,000 --> 00:37:24,940

We literally couldn't have done it without you.

805

00:37:37,500 --> 00:37:41,000

The Mythbusters know how to art direct an explosion.

806

00:37:43,960 --> 00:37:46,940

Ladies and gentlemen, so if Reddit wants to blow up

807

00:37:47,000 --> 00:37:50,440

an inflatable cartoon and finish this final season

808

00:37:50,500 --> 00:37:52,440

spectacular in style...

809

00:37:52,500 --> 00:37:53,940

Okay, I'm in the SNU.

810

00:37:54,000 --> 00:37:55,500

...then Adam and Jamie...

811

00:37:55,580 --> 00:37:57,480

Okay, guys, bring in the explosives.

812

00:37:57,540 --> 00:37:58,980

Ha-ha-ha-ha.

813

00:37:59,040 --> 00:38:01,240

...are just the men to deliver...

814

00:38:01,300 --> 00:38:02,300

I'm ready to be born.

815

00:38:02,380 --> 00:38:03,380

All right.

816

00:38:03,440 --> 00:38:05,380

...Taylor made mayhem.

817

00:38:05,440 --> 00:38:07,880

Yes, born from a SNU.

818

00:38:07,940 --> 00:38:09,880

Ha-ha-ha.

819

00:38:09,940 --> 00:38:12,440

With the SNU held in place...

820

00:38:12,480 --> 00:38:13,680

That seems good.

821

00:38:13,740 --> 00:38:16,180

It's time to get crafty.

822

00:38:16,240 --> 00:38:17,440

Hi, everybody.

823

00:38:17,500 --> 00:38:20,180

Now, this is a perfect Mythbusters craft project.

824

00:38:20,240 --> 00:38:22,180

I hope everyone at home is following along.

825

00:38:22,240 --> 00:38:23,780

You've got your glitter, your sparkles.

826

00:38:23,840 --> 00:38:27,080

I've also got tempera paint and 300 feet

827

00:38:27,140 --> 00:38:29,380

of explosive 50-grain deck cord.

828

00:38:29,440 --> 00:38:30,440

Yes.

829

00:38:30,500 --> 00:38:33,180

Follow along at home while I make this one here.

830

00:38:33,240 --> 00:38:36,480

Seriously, this is 300 feet of deck cord.

831

00:38:36,540 --> 00:38:38,880

I love my job.

832

00:38:38,940 --> 00:38:40,680

This is what's called a stable explosive.

833

00:38:40,680 --> 00:38:43,420

Nothing will make this go off except for a blast and cap.

834

00:38:43,480 --> 00:38:45,520

And only when the bomb squad caps in

835

00:38:45,580 --> 00:38:47,420

does it become actually dangerous,

836

00:38:47,480 --> 00:38:50,420

and by that point, will it be nice and far away.

837

00:38:50,480 --> 00:38:52,320

Now for the tempera paint.

838

00:38:52,380 --> 00:38:54,380

To maximize the spectacle,

839

00:38:54,460 --> 00:38:58,520

Adam begins by wrapping the explosive in paint-filled bags.

840

00:38:58,580 --> 00:39:01,220

Ha-ha-ha-ha.

841

00:39:01,280 --> 00:39:06,820

Oh, I'm laughing because the absurdity is sinking in.

842

00:39:06,880 --> 00:39:10,580

I'm using my more than decades' worth of explosives

843

00:39:10,580 --> 00:39:14,480

to show you what an explosive ordinance experience is.

844

00:39:14,540 --> 00:39:18,080

To blow up a snu in the most colorful way possible.

845

00:39:18,140 --> 00:39:20,980

All right, I'm ready for the glitter

846

00:39:21,040 --> 00:39:23,180

when you want to start handing some of that.

847

00:39:23,240 --> 00:39:26,480

Got them. Excellent. Awesome.

848

00:39:26,540 --> 00:39:28,280

That's great.

849

00:39:28,340 --> 00:39:32,080

Ha-ha-ha-ha. Keep it coming.

850

00:39:32,140 --> 00:39:35,140

Awesome. All right.

851

00:39:35,200 --> 00:39:37,640

It's time for the install.

852

00:39:37,700 --> 00:39:40,240

With the explosive positioned centrally,

853

00:39:40,260 --> 00:39:43,460

Adam hangs as many bags of paint and glitter

854

00:39:43,540 --> 00:39:47,000

as the internal structure of the snu can support.

855

00:39:47,060 --> 00:39:48,900

Ugh.

856

00:39:48,960 --> 00:39:51,200

Ugh.

857

00:39:51,260 --> 00:39:52,500

It's hot in here.

858

00:39:52,560 --> 00:39:55,000

Before making a quick exit.

859

00:39:55,060 --> 00:39:56,300

Let's go.

860

00:39:56,360 --> 00:39:58,040

Here we go.

861

00:39:58,100 --> 00:40:00,800

Oops. There we go. Ow.

862

00:40:00,860 --> 00:40:03,500

Ha-ha-ha-ha.

863

00:40:03,560 --> 00:40:05,240

It looks hilarious in there.

864

00:40:05,300 --> 00:40:07,200

Everything seems nice and secure, though.

865

00:40:07,260 --> 00:40:08,940

It's beautiful. Here, take a look.

866

00:40:08,940 --> 00:40:11,900

Ha. It looks like a bunch of fruit and vegetables.

867

00:40:11,960 --> 00:40:14,060

It's like a party in there. Yeah.

868

00:40:14,140 --> 00:40:15,660

Ha-ha-ha-ha.

869

00:40:15,740 --> 00:40:18,100

All right, predators.

870

00:40:18,160 --> 00:40:19,900

Are you ready? We have our snu.

871

00:40:19,960 --> 00:40:21,860

He's fully inflated. Inside his head,

872

00:40:21,940 --> 00:40:23,940

two and a half pounds of high explosives

873

00:40:24,000 --> 00:40:26,660

wrapped in tempera paint with extra bags of paint

874

00:40:26,740 --> 00:40:30,340

placed all inside his head plus bonus bags of glitter.

875

00:40:30,400 --> 00:40:31,940

I don't see any reason why we should waste

876

00:40:32,000 --> 00:40:34,060

one more minute of your time.

877

00:40:34,140 --> 00:40:36,740

Let's get behind the blast shields and blow this sucker up.

878

00:40:38,940 --> 00:40:40,900

This is it.

879

00:40:40,960 --> 00:40:43,400

So, I'm ready. Snu's ready. I know I'm ready.

880

00:40:43,460 --> 00:40:45,460

Adam and Jamie retreat to safety

881

00:40:45,540 --> 00:40:49,400

for the final season's final fan suggestion.

882

00:40:49,460 --> 00:40:50,640

I'm ready.

883

00:40:50,700 --> 00:40:52,340

Straight from your keyboard

884

00:40:52,400 --> 00:40:58,140

to sumptuous 25,000 frames a second slow motion detail.

885

00:40:58,200 --> 00:41:01,500

Redditors, for your gratuitous enjoyment.

886

00:41:01,560 --> 00:41:04,800

We're painting by numbers, and the numbers are...

887

00:41:04,880 --> 00:41:07,800

Three, two, one.

888

00:41:09,640 --> 00:41:11,140

Whoa!

889

00:41:11,200 --> 00:41:15,140

Ha-ha-ha-ha-ha.

890

00:41:15,200 --> 00:41:17,240

No, that was awesome.

891

00:41:19,300 --> 00:41:21,340

That was fast. That was fast.

892

00:41:21,400 --> 00:41:23,740

There was glitter. There was paint.

893

00:41:26,800 --> 00:41:28,500

The high speed shot's gonna be awesome.

894

00:41:28,560 --> 00:41:29,760

Yeah.

895

00:41:30,660 --> 00:41:33,660

Brace yourselves. The high speed is coming.

896

00:41:39,940 --> 00:41:42,940

Thank you, Reddit. It's been a blast.

897

00:42:02,700 --> 00:42:04,760

You know, I think that's the first time we've ever blown up

898

00:42:04,840 --> 00:42:06,360

an inflatable something or other.

899

00:42:06,440 --> 00:42:08,140

I've blown up lots of things.

900

00:42:08,140 --> 00:42:09,760

I've blown up lots of them. What do you mean?

901

00:42:09,840 --> 00:42:11,360

Really? Yeah.

902

00:42:11,440 --> 00:42:12,600

I don't want to know.