

1

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

Please, don't try anything that you're about to see us do at home.

2

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

Ever.

3

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

Brutus Rube Goldberg machine.

4

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

Rise, my son.

5

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

And Carrie Grantontari break it down to find out how to keep your tree evergreen.

6

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

I like to style the tree, give it a little bit more fullness right around here.

7

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

Cook a festive roast on a radar.

8

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

That is so funny looking.

9

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

Should we all be wearing our lead apron?

10

00:00:52,000 --> 00:00:57,000

And find out if falling frozen turkeys can be terminal.

11

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

That is messed up!

12

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

Who are the Mythbusters?

13

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

Adam Savage.

14

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

Ow, ow, ow, ow, ow, ow.

15

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

And Jamie Heineman.

16

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

Almost too exciting.

17

00:01:11,000 --> 00:01:16,000

Between them more than 30 years of special effects experience.

18

00:01:16,000 --> 00:01:18,000

Huge dramatic music.

19

00:01:18,000 --> 00:01:20,000

Joining them, Carrie Byron.

20

00:01:20,000 --> 00:01:22,000

That's gonna be so cool!

21

00:01:22,000 --> 00:01:23,000

Grant Imahara.

22

00:01:23,000 --> 00:01:25,000

Listen to that baby purr!

23

00:01:25,000 --> 00:01:26,000

And Tori Bellaci.

24

00:01:26,000 --> 00:01:29,000

Charmedics are nowhere to be found.

25

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

Just tell the myths.

26

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

They put them to the test.

27

00:01:46,000 --> 00:01:48,000

Ho, ho, ho.

28

00:01:48,000 --> 00:01:49,000

Ho, ho yourself.

29

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

It's Christmas and we have to do something about it.

30

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

It's not really my bag.

31

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

What are you gonna be doing on Christmas morning?

32

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

I'll be in the shop like always.

33

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

If you're already gonna be there, let's shoot a Christmas special.

34

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

Okay.

35

00:02:03,000 --> 00:02:04,000

Excellent.

36

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

Christmas myths, here we come.

37

00:02:09,000 --> 00:02:13,000

Whether you think the Yuletide season is the most magical time of the year,

38

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

or a bunch of bah-huh bug,

39

00:02:15,000 --> 00:02:20,000

it's full of fables Jamie and Adam can't wait to unwrap for you.

40

00:02:21,000 --> 00:02:24,000

What do you say we do something special for the fans?

41

00:02:24,000 --> 00:02:26,000

That sounds like a great idea.

42

00:02:26,000 --> 00:02:27,000

What do you have in mind?

43

00:02:27,000 --> 00:02:31,000

I'm thinking like a Rube Goldberg Christmas contraption.

44

00:02:31,000 --> 00:02:34,000

I love the idea, but where's the myth?

45

00:02:34,000 --> 00:02:35,000

We don't need a myth.

46

00:02:35,000 --> 00:02:36,000

We can just have some fun.

47

00:02:36,000 --> 00:02:37,000

It's Christmas.

48

00:02:37,000 --> 00:02:41,000

We can make this big machine that's got Mentos and Soda going off.

49

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

It's a Christmas theme, all sorts of mechanical stuff, explosions.

50

00:02:45,000 --> 00:02:46,000

You name it, we'll throw it in.

51

00:02:46,000 --> 00:02:48,000

I love it.

52

00:02:48,000 --> 00:02:49,000

Let's do it.

53

00:02:51,000 --> 00:02:52,000

Great.

54

00:02:52,000 --> 00:02:53,000

What the heck is it?

55

00:02:53,000 --> 00:02:57,000

A Rube Goldberg machine is a series of elaborate mechanical things.

56

00:02:57,000 --> 00:02:59,000

Like a domino effect,

57

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

each activates the next to a very simple conclusion,

58

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

like peeling a banana.

59

00:03:08,000 --> 00:03:14,000

The E.P. Birds made a version recently using that gushy marvel of Diet Coke and Mentos,

60

00:03:14,000 --> 00:03:20,000

and their popular internet creation is about to get a whole new Mythbusters makeover.

61

00:03:21,000 --> 00:03:26,000

The guys have made Rube Goldberg machines before for big budget commercials,

62

00:03:26,000 --> 00:03:31,000

and they've learned the most important element of all is a plan.

63

00:03:31,000 --> 00:03:33,000

So the plan starts off like this.

64

00:03:33,000 --> 00:03:36,000

You've got a Mentos candy that's rolling down a ramp,

65

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

it falls into a soda bottle that erupts,

66

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

it knocks a paddle wheel which...

67

00:03:40,000 --> 00:03:42,000

Let's move it along.

68

00:03:42,000 --> 00:03:44,000

We don't want to spoil the surprise.

69

00:03:45,000 --> 00:03:52,000

To power their invention, Adam and Jamie are using the volatile combination of Mentos and soda.

70

00:03:53,000 --> 00:03:58,000

In a recent Myth, the guys blew the lid off this global phenomenon.

71

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

They discovered the active ingredients in the Mentos and Diet Coke,

72

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

combined with the effect of nucleation created from the pitted surface of the candy itself,

73

00:04:09,000 --> 00:04:15,000

cause a rapid release of carbon dioxide and a Krakatoa of cola.

74

00:04:17,000 --> 00:04:20,000

Jamie gets to work on the starter motor for the whole rig,

75

00:04:20,000 --> 00:04:25,000

an inverted metal and mesh cone that has soda bottles welded to the rim.

76

00:04:27,000 --> 00:04:30,000

This sweet baby doesn't run on gas.

77

00:04:30,000 --> 00:04:34,000

What we do is take a...just a any chunk of steel will do,

78

00:04:34,000 --> 00:04:38,000

like this nut, perch that on the inside of the neck of the bottle,

79

00:04:38,000 --> 00:04:46,000

we put our Mentos on it and then when we yank the magnet away, we get...that.

80

00:04:47,000 --> 00:04:49,000

Time for a test run.

81

00:04:49,000 --> 00:04:53,000

And three, two, one.

82

00:04:59,000 --> 00:05:01,000

Jamie, that's excellent. Sort of.

83

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

I'll get them off.

84

00:05:04,000 --> 00:05:06,000

Quickly. It's going for my steel rack.

85

00:05:07,000 --> 00:05:12,000

For his next trick, Jamie attaches a float control valve to a bottle of soda.

86

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

There we go.

87

00:05:16,000 --> 00:05:21,000

I found that dropping the Mentos into the soda, if you release the pressure slowly,

88

00:05:21,000 --> 00:05:24,000

you can get just gas. That's cool.

89

00:05:24,000 --> 00:05:28,000

The gas inflates Jamie's plastic party favor very nicely.

90

00:05:28,000 --> 00:05:30,000

Adam, come here.

91

00:05:33,000 --> 00:05:35,000

That's great.

92

00:05:37,000 --> 00:05:41,000

Some more holiday joy arrives, special delivery.

93

00:05:41,000 --> 00:05:43,000

There you go. Oh, they're hideous.

94

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

Oh.

95

00:05:45,000 --> 00:05:49,000

So what's the symbolism here?

96

00:05:49,000 --> 00:05:53,000

The monkeys are the last part of the sequence that is all kind of on one plane.

97

00:05:53,000 --> 00:05:58,000

When they applaud, they'll gradually work the way forward on a little kind of seesaw thing.

98

00:05:58,000 --> 00:06:01,000

It'll trip and then that sets off the next series of gags.

99

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

Tip that scale, monkeys.

100

00:06:07,000 --> 00:06:08,000

Bye.

101

00:06:10,000 --> 00:06:11,000

Goodbye, my little friend.

102

00:06:12,000 --> 00:06:13,000

And you too.

103

00:06:19,000 --> 00:06:22,000

You know, Christmas just isn't complete without Christmas trees,

104

00:06:22,000 --> 00:06:27,000

but as the holidays go on, they start dropping their needles and they make a huge mess.

105

00:06:27,000 --> 00:06:31,000

I've heard of all sorts of mythical recipes for keeping needles on your trees.

106

00:06:31,000 --> 00:06:35,000

Well, let's get a bunch of trees and test all the methods we can find.

107

00:06:37,000 --> 00:06:40,000

It's fun to choose your own Christmas tree.

108

00:06:40,000 --> 00:06:42,000

Jerry likes this spruce tree.

109

00:06:42,000 --> 00:06:45,000

Jane likes the tall pine with long needles.

110

00:06:45,000 --> 00:06:51,000

Nothing evokes the feeling of the holidays like the smell of fresh pine on a real tree.

111

00:06:51,000 --> 00:06:57,000

But sometimes all the debris they drop makes you wish you'd gone with plastic.

112

00:06:57,000 --> 00:07:01,000

To put to the test mythical miracles touted to keep your tree fresh,

113

00:07:01,000 --> 00:07:05,000

Grant and Tori head off to go Christmas tree shopping.

114

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

While Carrie stays back to make needle catchers.

115

00:07:09,000 --> 00:07:13,000

Basically it's going to be a little platform with a ridge so the needles don't blow away

116

00:07:13,000 --> 00:07:17,000

and a little hole where we can sweep all the needles into a little clear plastic container

117

00:07:17,000 --> 00:07:23,000

and we can measure the volume of them by day or by week depending on how long it takes for all the needles to fall.

118

00:07:23,000 --> 00:07:26,000

Okay, one down, nine to go.

119

00:07:26,000 --> 00:07:30,000

As she continues building, the guys arrive at the Christmas tree farm.

120

00:07:31,000 --> 00:07:36,000

But as they drive through the gate, they run into a little problem.

121

00:07:36,000 --> 00:07:39,000

Tori and Grant are used to being stopped at the door,

122

00:07:39,000 --> 00:07:43,000

but that's usually when they're trying to get into a fancy restaurant.

123

00:07:43,000 --> 00:07:46,000

It's not exactly a great first impression.

124

00:07:46,000 --> 00:07:49,000

Yeah, just go down to the tree farm and get us some trees.

125

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

Luckily John the order is an easy going guy.

126

00:07:53,000 --> 00:07:55,000

John, nice to meet you. I'm Tori.

127

00:07:55,000 --> 00:07:56,000

Grant, nice to meet you.

128

00:07:56,000 --> 00:07:57,000

Sorry about the sign.

129

00:07:57,000 --> 00:07:58,000

No problem.

130

00:07:58,000 --> 00:07:59,000

No problem, heard it.

131

00:07:59,000 --> 00:08:04,000

Grant and Tori pick out ten Douglas firs all the same size.

132

00:08:04,000 --> 00:08:06,000

Definitely not that one.

133

00:08:06,000 --> 00:08:10,000

When I was a kid we couldn't afford ornaments.

134

00:08:10,000 --> 00:08:17,000

They're trees selected and measured. They cut them down and load them into the truck.

135

00:08:17,000 --> 00:08:24,000

Before they leave they have to do one more thing, put John's sign back up.

136

00:08:24,000 --> 00:08:27,000

Little more! Stop!

137

00:08:29,000 --> 00:08:31,000

Not again.

138

00:08:33,000 --> 00:08:35,000

Did that sound good?

139

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

That didn't sound good.

140

00:08:37,000 --> 00:08:41,000

It's not exactly a great last impression either.

141

00:08:44,000 --> 00:08:46,000

Really, I'm fixing it.

142

00:08:46,000 --> 00:08:51,000

John, here's some gratis airtime to say sorry.

143

00:08:52,000 --> 00:09:02,000

It's beginning to look a lot like Christmas as the team painstakingly pieces together a holiday

themed Rube Goldberg machine.

144

00:09:02,000 --> 00:09:07,000

Jamie and I are building a kind of mechanical Christmas pageant machine.

145

00:09:07,000 --> 00:09:13,000

We're trying to make it something that's both filmable and interesting and involves all these different things.

146

00:09:13,000 --> 00:09:16,000

Mentos, cola, Christmas, mechanical stuff.

147

00:09:16,000 --> 00:09:19,000

It's alive!

148

00:09:20,000 --> 00:09:23,000

Let's go indoor bowling with Jamie.

149

00:09:27,000 --> 00:09:29,000

Strike!

150

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

For this setup Jamie builds a midi bowling lane.

151

00:09:32,000 --> 00:09:37,000

Then suspends a bowling ball from a tightly wound cord.

152

00:09:37,000 --> 00:09:38,000

You ready?

153

00:09:38,000 --> 00:09:41,000

Wait, uh, okay now I'm ready.

154

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

Oh, knock them down.

155

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

Adams cooking up another trick.

156

00:09:45,000 --> 00:09:52,000

He welds an oven to a specially designed steel stand that will serve up an unforgettable holiday meal.

157

00:09:52,000 --> 00:09:55,000

So, it'll be perched like this.

158

00:09:55,000 --> 00:09:57,000

Hammer will hit it.

159

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

All right, there's a couple of kinks.

160

00:10:04,000 --> 00:10:06,000

Just a couple of kinks.

161

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

But if they iron them all out, it's gonna be a great show.

162

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

We've got liquid squirting all over the place.

163

00:10:13,000 --> 00:10:15,000

We've got chemical reactions.

164

00:10:15,000 --> 00:10:17,000

We've got, you know, wheels spinning.

165

00:10:17,000 --> 00:10:18,000

We've got balls rolling.

166

00:10:18,000 --> 00:10:20,000

We've got things going off.

167

00:10:20,000 --> 00:10:21,000

Cannons exploding.

168

00:10:21,000 --> 00:10:23,000

Electrical arcs jumping.

169

00:10:23,000 --> 00:10:26,000

Arise my son!

170

00:10:26,000 --> 00:10:29,000

And buster in a pear tree.

171

00:10:29,000 --> 00:10:31,000

Oh, it's awesome.

172

00:10:31,000 --> 00:10:33,000

It's like a ballet.

173

00:10:33,000 --> 00:10:36,000

So, step right up folks.

174

00:10:36,000 --> 00:10:39,000

The spectacle is about to begin.

175

00:10:39,000 --> 00:10:45,000

Back over at M7, the team is prepping their Christmas trees for the great needle drop fest.

176

00:10:45,000 --> 00:10:47,000

I've taken the advice of the expert.

177

00:10:47,000 --> 00:10:50,000

He said to cut an inch above our original cut.

178

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

This is gonna open up the cells and allow whatever we put into our trays to be able to do.

179

00:10:55,000 --> 00:11:00,000

The trees are inserted through the holes in Carrie's needle catchers and secured to their stands.

180

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

Alrighty.

181

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

Then, Grant vacuums up any debris.

182

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

We just want to make sure that when we do officially start the experiment,

183

00:11:09,000 --> 00:11:12,000

that we start everything with a clean slate.

184

00:11:12,000 --> 00:11:16,000

All the needles we collect from then on will be the ones that we're judging our experiment.

185

00:11:16,000 --> 00:11:18,000

We're gonna start with the needle catcher.

186

00:11:18,000 --> 00:11:20,000

We're gonna start with the needle catcher.

187

00:11:20,000 --> 00:11:22,000

We're gonna start with the needle catcher.

188

00:11:22,000 --> 00:11:24,000

Then, Grant vacuums up any debris.

189

00:11:24,000 --> 00:11:26,000

Then, Grant vacuums up any debris.

190

00:11:26,000 --> 00:11:29,000

That will be the ones that we're judging our experiment.

191

00:11:29,000 --> 00:11:32,000

One tree will be kept as the control, and fed only water.

192

00:11:32,000 --> 00:11:36,000

Seven others will be treated with a different anti-needle dropping remedy.

193

00:11:36,000 --> 00:11:39,000

From the ordinary to the out there.

194

00:11:39,000 --> 00:11:43,000

First is a plant friendly additive, fertilizer.

195

00:11:43,000 --> 00:11:44,000

Nice.

196

00:11:44,000 --> 00:11:50,000

Tori adds a ratio of 5% to a gallon of water and pours it into the stand.

197

00:11:50,000 --> 00:11:53,540

All right, time to kill a Christmas tree.

198

00:11:53,540 --> 00:11:55,700

Tree number two isn't so lucky.

199

00:11:55,700 --> 00:11:59,780

It gets to suck up a 5% mix of bleach.

200

00:11:59,780 --> 00:12:04,860

Bleach contains the toxin chlorine that kills bacteria, so maybe it'll keep it sparkling.

201

00:12:04,860 --> 00:12:09,300

My prediction is this thing is going to be brown tomorrow.

202

00:12:09,300 --> 00:12:13,220

Next is a libation that's a whole lot more refreshing.

203

00:12:13,220 --> 00:12:15,080

Lemon, lime and soda.

204

00:12:15,080 --> 00:12:19,380

I'm guessing that why you would use this versus say regular water would have to be either

205

00:12:19,380 --> 00:12:25,020

sugar, carbonation or preservatives because otherwise it is just water.

206

00:12:25,020 --> 00:12:31,900

Now people seem to think sugar, maybe because it makes them hyper, will perk up the tree.

207

00:12:31,900 --> 00:12:37,140

Then Carrie crushes up and dispenses a popular pain reliever that some people believe stops

208

00:12:37,140 --> 00:12:40,020

the headache of cleaning up fallen needles.

209

00:12:40,020 --> 00:12:43,300

There we go.

210

00:12:43,300 --> 00:12:47,060

Next is a little blue pill that's a mystery product.

211

00:12:47,060 --> 00:12:49,100

I'll let Carrie set it straight.

212

00:12:49,100 --> 00:12:55,220

I'm trying to dance around how to say this because people might have their kids watching.

213

00:12:55,220 --> 00:13:00,980

Santa's little helper, daddy's little helper, maybe mama's little helper.

214

00:13:00,980 --> 00:13:04,580

Santa's little helper contains nitric oxide.

215

00:13:04,580 --> 00:13:10,180

In humans it increases blood flow, so it might help plants feel more vigorous too.

216

00:13:10,180 --> 00:13:14,180

It's got to take a little time to take effect.

217

00:13:14,180 --> 00:13:16,140

I don't know, does it?

218

00:13:16,140 --> 00:13:21,140

Another possible trick of holding things firm is to use hairspray.

219

00:13:21,140 --> 00:13:25,780

So I am applying hairspray as a needle retention device.

220

00:13:25,780 --> 00:13:30,980

What I think is going to happen is I spray this all over the tree and it creates a little

221

00:13:30,980 --> 00:13:34,660

barrier that will keep the moisture in and keep the needles on.

222

00:13:34,660 --> 00:13:37,460

You know I like to style the tree.

223

00:13:37,460 --> 00:13:40,540

I give it a little bit more fullness right around here.

224

00:13:40,540 --> 00:13:42,540

Put the hairspray.

225

00:13:42,540 --> 00:13:45,900

Very nice.

226

00:13:45,900 --> 00:13:51,660

The final tree is the ultimate Mythbusters special that takes the hairspray idea to a

227

00:13:51,660 --> 00:13:54,340

whole new stratosphere.

228

00:13:54,340 --> 00:13:59,260

The team suits up and breaks it down old school style.

229

00:13:59,260 --> 00:14:02,260

Bring it in.

230

00:14:02,260 --> 00:14:04,780

Ain't it funky?

231

00:14:04,780 --> 00:14:07,780

Funky.

232

00:14:07,780 --> 00:14:13,700

Like a happy hazmat team, they spray the tree all over with a clear coat of urethane.

233

00:14:14,700 --> 00:14:20,700

The idea is that we're going to completely encase the tree in a thin clear layer of urethane.

234

00:14:20,700 --> 00:14:23,820

And that's going to keep all the moisture in.

235

00:14:23,820 --> 00:14:29,100

It's the ultimate extra superhold spray that also adds fabulous shine.

236

00:14:29,100 --> 00:14:34,700

So what do you think average American family think they're going to be able to do this?

237

00:14:34,700 --> 00:14:38,500

Oh totally, I have a spray with my house.

238

00:14:38,500 --> 00:14:43,180

The trees will be monitored over a six week period and their needle dropping results will

239

00:14:43,180 --> 00:14:46,180

be revealed at the end of the show.

240

00:14:51,180 --> 00:14:54,700

Christmas is coming, it's time to think about getting the bird.

241

00:14:54,700 --> 00:15:00,260

Well unlike my bean curd substitute turkey, there's all sorts of stories and myths about

242

00:15:00,260 --> 00:15:02,340

the dangers of the frozen turkey.

243

00:15:02,340 --> 00:15:06,900

I've heard it's cracked floor tiles, like broken toes and even caused the death of some

244

00:15:06,900 --> 00:15:07,900

pets.

245

00:15:07,900 --> 00:15:12,660

Well why don't we separate fact from fiction and see how lethal these frozen turkeys are.

246

00:15:12,660 --> 00:15:15,660

It'll be like a public service.

247

00:15:15,660 --> 00:15:16,660

Exactly.

248

00:15:18,660 --> 00:15:23,660

Every holiday season we humans cause the turkey population to plummet.

249

00:15:23,660 --> 00:15:29,660

But is it possible for a falling frozen turkey to turn the tables on us?

250

00:15:30,660 --> 00:15:33,660

When dropping turkeys what do you need?

251

00:15:33,660 --> 00:15:38,660

Well first up a steel turkey dropper rig to play the role of a frazzled homemaker.

252

00:15:42,660 --> 00:15:45,660

Grant is making its power mechanism.

253

00:15:45,660 --> 00:15:51,660

I am rigging up the air system for the turkey drop rig and these are rotary pneumatic air

254

00:15:51,660 --> 00:15:52,660

cylinders.

255

00:15:52,660 --> 00:15:58,660

When I hit this button it's going to open up the arms just like that, dropping the turkey.

256

00:15:59,660 --> 00:16:03,660

Meanwhile Tari demonstrates his handyman skills.

257

00:16:03,660 --> 00:16:06,660

So we need some hands to hold the turkey for the turkey drop mechanism.

258

00:16:06,660 --> 00:16:11,660

So what I'm doing right now I'm going to pour up some hands in some urethane and I'm going

259

00:16:11,660 --> 00:16:15,660

to put this tube, these steel tubes into the hands and they will slip into the arms of

260

00:16:15,660 --> 00:16:16,660

the rig.

261

00:16:16,660 --> 00:16:22,660

He pours the instant urethane into pre-made molds, gives them a shake and pressed up.

262

00:16:23,660 --> 00:16:25,660

Give them a hand everyone.

263

00:16:26,660 --> 00:16:28,660

Don't touch me with those.

264

00:16:28,660 --> 00:16:30,660

Well you don't know where these have been.

265

00:16:30,660 --> 00:16:33,660

Tari attaches his arms to the rig.

266

00:16:33,660 --> 00:16:34,660

Put it there.

267

00:16:34,660 --> 00:16:40,660

Using a sandbag as a substitute bird they're ready to test its turkey dropping technique.

268

00:16:41,660 --> 00:16:44,660

3, 2, 1.

269

00:16:47,660 --> 00:16:49,660

Ohhhh.

270

00:16:50,660 --> 00:16:53,660

What the heck.

271

00:16:53,660 --> 00:16:56,660

Well it looks like we need to make some new hands.

272

00:16:56,660 --> 00:17:00,660

Now that's what I call a firm handshake.

273

00:17:01,660 --> 00:17:04,660

Dude we want to talk about why I just got hit and hit with the thumb.

274

00:17:04,660 --> 00:17:07,660

Um, no.

275

00:17:07,660 --> 00:17:12,660

While the guys make their modifications, Kari is creating some feet.

276

00:17:12,660 --> 00:17:17,660

Adam already has made a mold for our steel cap boot experiment in the past and I'm going

277

00:17:17,660 --> 00:17:21,660

to use this because it makes a great skeleton foot.

278

00:17:21,660 --> 00:17:28,660

The skeleton is made from a mix of urethane and fiberglass that dries to a realistic bone-like texture.

279

00:17:28,660 --> 00:17:30,660

That is a good mold Adam made here.

280

00:17:30,660 --> 00:17:33,660

This one fits into here.

281

00:17:33,660 --> 00:17:34,660

This one.

282

00:17:34,660 --> 00:17:38,660

Then they're encased in a foot-shaped mold of ballistic gelatin.

283

00:17:38,660 --> 00:17:40,660

Nice.

284

00:17:40,660 --> 00:17:46,660

Her feet are definitely suffering from fallen arches but they'll do just fine.

285

00:17:46,660 --> 00:17:52,660

Now because we're all dog lovers here at Mythbusters to test the turkey's falling on

286

00:17:52,660 --> 00:17:56,660

small pets myth, Kari is making fake pooches.

287

00:17:56,660 --> 00:18:00,660

She covers canine replica skeletons in ballistic medium.

288

00:18:01,660 --> 00:18:05,660

This is definitely not a breed recommended for families with small children.

289

00:18:05,660 --> 00:18:11,660

Yeah, this really doesn't have anything to do with the myth but it's a flesh-eating

290

00:18:11,660 --> 00:18:16,660

zombie dog so it needs some flesh-eating zombie googly eyes.

291

00:18:16,660 --> 00:18:19,660

That's so fun.

292

00:18:19,660 --> 00:18:21,660

I started out making a dog.

293

00:18:21,660 --> 00:18:23,660

I love it.

294

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

Nice doggy.

295

00:18:24,660 --> 00:18:28,660

Grant, you might want to sleep with one eye open tonight.

296

00:18:29,660 --> 00:18:31,660

I used to do good puppy.

297

00:18:35,660 --> 00:18:38,660

Over at M5, it's going to be a gas.

298

00:18:38,660 --> 00:18:43,660

Jamie and Adam are finally ready to activate their Rube Goldberg machine,

299

00:18:43,660 --> 00:18:48,660

a 100-foot-long holiday miracle with 60 moving parts.

300

00:18:48,660 --> 00:18:52,660

Just to make the point, I wouldn't even walk fast near a lot of this stuff

301

00:18:52,660 --> 00:18:55,660

so nobody breathes on this one, alright?

302

00:18:55,660 --> 00:18:59,660

It's the moment of truth, but how's it all going to work?

303

00:18:59,660 --> 00:19:02,660

Pay close attention because here's exactly what's going to happen.

304

00:19:02,660 --> 00:19:04,660

At the top of this cone are 10 bottles of cola.

305

00:19:04,660 --> 00:19:07,660

At a prescribed moment, Jamie will yank on this string, releasing a mento into each of those 10 bottles,

306

00:19:07,660 --> 00:19:11,660

which will then spray cola down into this funnel, down into this tube,

307

00:19:11,660 --> 00:19:14,660

up to this pair of wires, which will make an electrical contact,

308

00:19:14,660 --> 00:19:20,660

which will release this motor, sending this bowling ball, spinning, spinning, spinning, spinning, spinning, spinning, spinning, spinning,

309

00:19:20,660 --> 00:19:24,660

spinning down, it'll stop, but the bowling ball will keep on spinning, release itself from the screw, fall down, hit,

310

00:19:24,660 --> 00:19:28,660

all 10 sand to bowling pins, which will yank on the string, send the skiers down.

311

00:19:28,660 --> 00:19:33,660

The skiers going down will yank on this magnet, which will release this soda bottle,

312

00:19:33,660 --> 00:19:39,660

sending the party favor going, going like this, releasing this mento, all the way down into the basket,

313

00:19:39,660 --> 00:19:45,660

releasing this mento, all the way down into this basket, this ball will go down here,

314

00:19:45,660 --> 00:19:49,660

release the train, all the way around, all the way around, into the present, boom, the present closes,

315

00:19:49,660 --> 00:19:54,660

releases the mento into this bottle of soda, sending this robot, pushing the candle under the string,

316

00:19:54,660 --> 00:19:57,660

the candle will burn through the string, the string will release the hammer, hammer will hit the stove,

317

00:19:57,660 --> 00:20:03,660

the stove, which has a roast in it, will release its roast onto this seesaw, onto the dinosaur platform,

318

00:20:03,660 --> 00:20:09,660

jiggling this thing, releasing the two little doodads here, which will send the seesaw going this way,

319

00:20:09,660 --> 00:20:13,660

releasing the ball into this robot, turning him on. This robot will find his way eventually to this hand,

320

00:20:13,660 --> 00:20:18,660

which will boom, turn this switch on, sending the jacob flutter, like Frankenstein's monster,

321

00:20:18,660 --> 00:20:23,660

that will set off, this fuse, boom, sending the cannon off, the cannon will release the pirate's hat,

322

00:20:23,660 --> 00:20:29,660

the pirate's hat will turn on the monkeys, the monkeys will go down the ramp, releasing the nut from

323

00:20:29,660 --> 00:20:33,660

this nutcracker's mouth, which I just did, releasing another mento into this bottle of soda,

324

00:20:33,660 --> 00:20:38,660

sending this thing, spinning, pulling a string out, which lets this foot kick the broken crutch here,

325

00:20:38,660 --> 00:20:42,660

sending Buster crashing into the ground, and that's what's going to happen.

326

00:20:42,660 --> 00:20:48,660

Happen or not, you've just witnessed the longest piece to camera in MythBusters history.

327

00:20:48,660 --> 00:20:51,660

This is Rube Goldberg, run one.

328

00:20:52,660 --> 00:20:56,660

And three, two, one.

329

00:20:57,660 --> 00:21:05,660

Jamie pulls the wires, the soda bubbles up, but the machine comes to a stop, something needs flushing.

330

00:21:05,660 --> 00:21:11,660

Hello. There's something blocking it. That's the problem, the end was above the level.

331

00:21:11,660 --> 00:21:15,660

They reposition the tube, mop up, and are ready to go again.

332

00:21:16,660 --> 00:21:18,660

Go back, run two.

333

00:21:18,660 --> 00:21:22,660

Three, two, one.

334

00:21:24,660 --> 00:21:28,660

This time the soda passes through the pipe with ease.

335

00:21:28,660 --> 00:21:30,660

There she blows, uh oh.

336

00:21:30,660 --> 00:21:34,660

Triggering Jamie's spinning bowling ball mechanism.

337

00:21:34,660 --> 00:21:37,660

Oh, it's very smooth.

338

00:21:41,660 --> 00:21:46,660

That hits the set of pins, but the skiers are stuck on the slope.

339

00:21:46,660 --> 00:21:48,660

Here we go again.

340

00:21:48,660 --> 00:21:50,660

All right.

341

00:21:50,660 --> 00:21:53,660

Well, that's the nature of the beast.

342

00:21:53,660 --> 00:21:58,660

Reset. With all this pent-up tension, Adam needs a release.

343

00:21:59,660 --> 00:22:02,660

The main constraints we're working with is there's no cheating here.

344

00:22:02,660 --> 00:22:05,660

Each mechanical gag leads to the next one inexorably.

345

00:22:05,660 --> 00:22:10,660

So if something messes up, we have to reset everything and start from scratch again.

346

00:22:10,660 --> 00:22:14,660

Let's leave them alone to figure out what went wrong this time.

347

00:22:14,660 --> 00:22:16,660

It's all your rig, isn't it?

348

00:22:16,660 --> 00:22:18,660

Yeah, you've got something you want to say about it?

349

00:22:18,660 --> 00:22:20,660

Just wait and see.

350

00:22:22,660 --> 00:22:26,660

Can a falling frozen turkey do this kind of damage?

351

00:22:26,660 --> 00:22:34,660

To find out, the team are about to test the pummel power of frozen fowls with their mechanical homemaker.

352

00:22:34,660 --> 00:22:36,660

See what we're about right?

353

00:22:36,660 --> 00:22:39,660

Pulling the turkey out of the freezer, somewhere around there.

354

00:22:39,660 --> 00:22:45,660

You've got to imagine like you're pulling a turkey out of the freezer, so the normal height is around 60 to 69 inches.

355

00:22:45,660 --> 00:22:48,660

A force plate is put in the drop zone.

356

00:22:48,660 --> 00:22:56,660

That's going to tell us how much energy the dropping turkey is going to impart on your foot.

357

00:22:56,660 --> 00:23:00,660

It's time to stop talking turkey and drop them.

358

00:23:03,660 --> 00:23:04,660

Next time, Adam.

359

00:23:04,660 --> 00:23:05,660

Yeah, good.

360

00:23:05,660 --> 00:23:09,660

In three, two, one.

361

00:23:12,660 --> 00:23:13,660

Wow.

362

00:23:13,660 --> 00:23:14,660

Okay.

363

00:23:14,660 --> 00:23:15,660

Right in the middle.

364

00:23:15,660 --> 00:23:16,660

Woo!

365

00:23:18,660 --> 00:23:22,660

The bird dived like a boulder, but how hard did it hit?

366

00:23:22,660 --> 00:23:27,660

As you can see here, the initial hit is 1,901 newtons.

367

00:23:27,660 --> 00:23:31,660

That is 427.3 pounds.

368

00:23:31,660 --> 00:23:32,660

Wow.

369

00:23:32,660 --> 00:23:34,660

See, that could break your foot.

370

00:23:34,660 --> 00:23:36,660

Let's find out, shall we?

371

00:23:36,660 --> 00:23:39,660

The plate is removed and Carrie puts her foot down.

372

00:23:39,660 --> 00:23:43,660

This is very, very dangerous.

373

00:23:43,660 --> 00:23:46,660

This time they position the turkey pointing down.

374

00:23:46,660 --> 00:23:48,660

It might do more damage.

375

00:23:48,660 --> 00:23:51,660

Three, two, one.

376

00:23:55,660 --> 00:23:57,660

That was a perfect shot.

377

00:23:57,660 --> 00:23:58,660

You can feel that.

378

00:23:58,660 --> 00:23:59,660

Ouch.

379

00:23:59,660 --> 00:24:02,660

Call your podiatrist pronto.

380

00:24:02,660 --> 00:24:09,660

The pointed turkey pounded the foot with more than 770 pounds of bone crunching force.

381

00:24:13,660 --> 00:24:15,660

That broke the middle of the foot.

382

00:24:15,660 --> 00:24:16,660

That's harder.

383

00:24:16,660 --> 00:24:19,660

That threw the thickest bone right here.

384

00:24:19,660 --> 00:24:20,660

That was pretty thick.

385

00:24:20,660 --> 00:24:21,660

That's a strong part.

386

00:24:21,660 --> 00:24:23,660

That was a great shot.

387

00:24:23,660 --> 00:24:27,660

Now we're going to move on to the next step in our myth, which is small pets.

388

00:24:27,660 --> 00:24:32,660

And I've made the Spalistics Gel Zombie Dog to illustrate our point.

389

00:24:32,660 --> 00:24:38,660

Zombie Dog is under foot of the cook, prime falling scraps position.

390

00:24:38,660 --> 00:24:40,660

Does anybody else feel kind of bad about this?

391

00:24:40,660 --> 00:24:41,660

It's kind of cute.

392

00:24:41,660 --> 00:24:43,660

It's not a real dog.

393

00:24:43,660 --> 00:24:45,660

I know, but I'm getting attached.

394

00:24:45,660 --> 00:24:48,660

Three, two, one.

395

00:24:52,660 --> 00:24:54,660

Did you hear that sound?

396

00:24:54,660 --> 00:24:56,660

Did you hear that crack?

397

00:24:56,660 --> 00:24:58,660

Poor little fella.

398

00:24:58,660 --> 00:25:02,660

A giant frozen turkey was not the treat he was hoping for.

399

00:25:02,660 --> 00:25:06,660

The gang checks the high speed and it's not pretty.

400

00:25:11,660 --> 00:25:13,660

That is messed up.

401

00:25:13,660 --> 00:25:15,660

Still smiling.

402

00:25:15,660 --> 00:25:16,660

Didn't break his spirit.

403

00:25:16,660 --> 00:25:19,660

Legs look like they broke, back caved.

404

00:25:19,660 --> 00:25:21,660

Okay, let's move on to the next one.

405

00:25:21,660 --> 00:25:23,660

I think it's going to be worse.

406

00:25:23,660 --> 00:25:28,660

In the name of due diligence, they put another gel pet in the danger zone.

407

00:25:28,660 --> 00:25:31,660

Three, two, one.

408

00:25:33,660 --> 00:25:35,660

This reminds me of my Christmas.

409

00:25:39,660 --> 00:25:42,660

This drop is a real eye-opener.

410

00:25:46,660 --> 00:25:48,660

The head snaps around.

411

00:25:48,660 --> 00:25:52,660

Legs snap off, the eye comes out.

412

00:25:52,660 --> 00:25:55,660

Our zombie dogs need urgent medical attention,

413

00:25:55,660 --> 00:26:01,660

so the team takes them to a veterinarian to see exactly what kind of injuries they sustain.

414

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

Dr. Moran delivers his prognosis.

415

00:26:04,660 --> 00:26:07,660

I'm afraid it's not good news.

416

00:26:07,660 --> 00:26:13,660

Aside from the multiple spinal fractures, which the dog has a poor chance of recovering from,

417

00:26:13,660 --> 00:26:17,660

the right rear limb is shattered, the left rear limb has multiple fractures,

418

00:26:17,660 --> 00:26:23,660

and there's going to be a lot of surgery, and even with that, he may not come through it.

419

00:26:23,660 --> 00:26:27,660

I know this is a fake dog, but you're sort of depressing me right now.

420

00:26:27,660 --> 00:26:31,660

Yeah, the prognosis for this dog is not great.

421

00:26:31,660 --> 00:26:36,660

So, is a falling frozen turkey dangerous to your pet?

422

00:26:36,660 --> 00:26:37,660

Plausible?

423

00:26:37,660 --> 00:26:38,660

Oh, yeah.

424

00:26:38,660 --> 00:26:41,660

Well, obviously, because these aren't real dogs, we're not going to be able to test this for real,

425

00:26:41,660 --> 00:26:43,660

so it would have to be plausible.

426

00:26:48,660 --> 00:26:54,660

Back at the workshop, the team tends their Christmas tree garden.

427

00:26:54,660 --> 00:27:00,660

It's two weeks into the test, and each tree is being regularly treated with its chosen method

428

00:27:00,660 --> 00:27:02,660

and checked for needle droppage.

429

00:27:02,660 --> 00:27:06,660

What I'm doing right now is I'm sweeping up the needles into Carey's needle catchers,

430

00:27:06,660 --> 00:27:11,660

and this way we'll be able to accurately measure which tree is losing more needles.

431

00:27:12,660 --> 00:27:20,660

I have to control my breathing, because if I breathe too hard, I might knock off more needles.

432

00:27:20,660 --> 00:27:25,660

Carey and Grant inspect the trees for both needle retention and aesthetics.

433

00:27:25,660 --> 00:27:28,660

Last week's pick was soda.

434

00:27:28,660 --> 00:27:30,660

Hairspray was my pick.

435

00:27:30,660 --> 00:27:31,660

He's doing good.

436

00:27:31,660 --> 00:27:34,660

Santa's little helper's doing pretty good.

437

00:27:34,660 --> 00:27:36,660

Color's not so good.

438

00:27:36,660 --> 00:27:40,660

Okay, if you were going to just judge on color, the control is the greenest.

439

00:27:40,660 --> 00:27:45,660

Yeah, the one that we haven't added anything to is looking really good.

440

00:27:45,660 --> 00:27:50,660

And how about the Mythbusters ultimate urethane sprayed tree?

441

00:27:50,660 --> 00:27:55,660

I would say the worst would definitely be our super painted Mythbusters tree.

442

00:27:55,660 --> 00:27:57,660

That's turning a really weird red.

443

00:27:57,660 --> 00:28:04,660

There are four more weeks to go in this battle of the pines, and with no front runner, it's still any tree's race.

444

00:28:04,660 --> 00:28:08,660

Remember, short breath.

445

00:28:11,660 --> 00:28:22,660

For some holiday fun, Jamie and Adam are putting a merry Mythbusters twist on the EP Birds, Soda and Mentos' latest internet spectacle.

446

00:28:22,660 --> 00:28:25,660

There's something blocking it.

447

00:28:25,660 --> 00:28:28,660

Now, if they could just get it to work.

448

00:28:28,660 --> 00:28:29,660

Oh!

449

00:28:29,660 --> 00:28:31,660

Goldberg Run Tree?

450

00:28:31,660 --> 00:28:36,660

It's take three, and this time Jamie's engine is off to a smooth start.

451

00:28:36,660 --> 00:28:39,660

Oh, it's turning, and it's spinning.

452

00:28:39,660 --> 00:28:41,660

We're good.

453

00:28:41,660 --> 00:28:42,660

Oh, that's good.

454

00:28:42,660 --> 00:28:43,660

That's looking happy.

455

00:28:46,660 --> 00:28:47,660

Strike.

456

00:28:49,660 --> 00:28:51,660

Oh, yes, come on, baby, come on.

457

00:28:51,660 --> 00:28:53,660

Will Jamie's party favor reach the peak?

458

00:28:53,660 --> 00:28:54,660

Totally do it.

459

00:28:54,660 --> 00:28:55,660

You can totally do it.

460

00:28:55,660 --> 00:28:56,660

You're up for this.

461

00:28:56,660 --> 00:28:57,660

You're trained for this.

462

00:28:59,660 --> 00:29:00,660

Yay!

463

00:29:00,660 --> 00:29:03,660

A nice performance under pressure.

464

00:29:04,660 --> 00:29:11,660

The Mentos slides down the ramp, and Adam's trick shot is nothing but net.

465

00:29:16,660 --> 00:29:28,660

The ball boards the train, comes to the end of the line, and triggers their soda swinger.

466

00:29:28,660 --> 00:29:30,660

Come on, come on, there we go.

467

00:29:34,660 --> 00:29:36,660

Come on, baby.

468

00:29:37,660 --> 00:29:38,660

That's it.

469

00:29:38,660 --> 00:29:40,660

Red Robot Man marches into position.

470

00:29:40,660 --> 00:29:41,660

Go, Robot.

471

00:29:44,660 --> 00:29:45,660

There he goes.

472

00:29:47,660 --> 00:29:50,660

The turkey roll is perfection.

473

00:29:55,660 --> 00:29:58,660

But Yellow Robot Man shorts out.

474

00:29:59,660 --> 00:30:00,660

Why is he stuck?

475

00:30:00,660 --> 00:30:02,660

He's never gotten stuck before in his life.

476

00:30:03,660 --> 00:30:07,660

Adam is discovering this time of year can be very stressful.

477

00:30:07,660 --> 00:30:12,660

Jamie and I both done rigs like this for commercials before, and when we've done gags like this,

478

00:30:12,660 --> 00:30:16,660

I mean, we've had between two and eight weeks to build all the gags,

479

00:30:16,660 --> 00:30:19,660

and then like between three and four days to shoot the whole thing.

480

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

This rig, 37 gags, we had one week to build it and shoot it.

481

00:30:24,660 --> 00:30:28,660

How about some holiday music to lift everyone's spirits?

482

00:30:29,660 --> 00:30:30,660

Goldberg run fall.

483

00:30:31,660 --> 00:30:32,660

Hold this thing.

484

00:30:33,660 --> 00:30:34,660

Oh.

485

00:30:40,660 --> 00:30:41,660

Oh.

486

00:30:41,660 --> 00:30:43,660

Goldberg run five, fingers crossed.

487

00:30:47,660 --> 00:30:49,660

Take six, Goldberg run.

488

00:30:49,660 --> 00:30:50,660

There it goes.

489

00:30:51,660 --> 00:30:52,660

Yep.

490

00:30:53,660 --> 00:30:54,660

Oh.

491

00:30:54,660 --> 00:30:55,660

Oh.

492

00:30:55,660 --> 00:30:57,660

Oh, no.

493

00:30:57,660 --> 00:31:00,660

The things that have never gone wrong are the things that are going wrong.

494

00:31:00,660 --> 00:31:02,660

Goldberg run seven.

495

00:31:03,660 --> 00:31:10,660

What the f***?

496

00:31:12,660 --> 00:31:14,660

Someone's goodwill is fading fast.

497

00:31:16,660 --> 00:31:20,660

All the ones that seem totally bulletproof are the ones that are now giving us trouble.

498

00:31:20,660 --> 00:31:25,660

In fact, everything that I thought we didn't have to worry about at all

499

00:31:25,660 --> 00:31:27,660

are the things that are going wrong with it.

500

00:31:27,660 --> 00:31:29,660

Goldberg take eight.

501

00:31:34,660 --> 00:31:40,660

Tis the season to be jolly, but Adam's about to throw in the towel.

502

00:31:47,660 --> 00:31:50,660

All right, you guys, all this talk about Christmas is making me hungry.

503

00:31:50,660 --> 00:31:54,660

Funny you should say that, because we actually found a myth that involves cooking a turkey.

504

00:31:54,660 --> 00:31:59,660

Apparently, there's enough radiation coming off of a radio antenna to cook a turkey,

505

00:31:59,660 --> 00:32:01,660

just like in your microwave at home.

506

00:32:02,660 --> 00:32:04,660

You have got to be kidding.

507

00:32:04,660 --> 00:32:05,660

No, I'm serious.

508

00:32:05,660 --> 00:32:09,660

What sad person cooks their Christmas dinner in the microwave?

509

00:32:09,660 --> 00:32:11,660

Everyone's sad at the holidays.

510

00:32:13,660 --> 00:32:19,660

Every happy homemaker has their preferred method to truss, stuff and roast a holiday turkey.

511

00:32:19,660 --> 00:32:23,660

But for this recipe, you don't even need an oven.

512

00:32:23,660 --> 00:32:29,660

A microwave heats food by emitting electromagnetic radiation that travels through it in waves.

513

00:32:30,660 --> 00:32:34,660

The waves vibrate water molecules that raise the temperature.

514

00:32:34,660 --> 00:32:41,660

Radio and TV towers also send out this kind of energy, so maybe they can also bake a bird.

515

00:32:41,660 --> 00:32:50,660

To put the tower of theory to the test, the team takes a scenic drive to the tallest broadcasting antenna in San Francisco,

516

00:32:50,660 --> 00:32:51,660

Sutro Tower.

517

00:32:51,660 --> 00:32:58,660

At 977 feet, it's going to be a long climb to bake their bird, but the view should be spectacular.

518

00:33:00,660 --> 00:33:01,660

How are you?

519

00:33:01,660 --> 00:33:02,660

I'm good. How are you?

520

00:33:02,660 --> 00:33:03,660

I'm Tori.

521

00:33:03,660 --> 00:33:04,660

Tori.

522

00:33:04,660 --> 00:33:08,660

Turkey at industrial tape in hand, the team meets general manager Gene Zastrow.

523

00:33:08,660 --> 00:33:13,660

So Gene, what we want to find out is whether microwave energy can cook a turkey.

524

00:33:13,660 --> 00:33:18,660

So what do you think of us jumping up there and taping a turkey to it just to check?

525

00:33:18,660 --> 00:33:20,660

I don't think that's possible.

526

00:33:20,660 --> 00:33:26,660

Hey guys, maybe the warning signs strung up all over the site should have been a clue.

527

00:33:26,660 --> 00:33:30,660

So does Gene think the TV tower cooking method would have even worked?

528

00:33:30,660 --> 00:33:36,660

Microwave transmitters at the stations use our very low power there in the neighborhood of a couple of watts,

529

00:33:36,660 --> 00:33:43,660

as opposed to microwave oven, which is, you know, 700, 800, even up to 1200 watts of power.

530

00:33:43,660 --> 00:33:45,660

Plus it's very confined.

531

00:33:45,660 --> 00:33:47,660

Looks like this myth may be plucked.

532

00:33:47,660 --> 00:33:49,660

So now what?

533

00:33:49,660 --> 00:33:51,660

I think we might have to resort to another plan.

534

00:33:51,660 --> 00:33:53,660

Okay.

535

00:33:54,660 --> 00:33:57,660

Another plan? Now that's a plan.

536

00:33:57,660 --> 00:33:59,660

How about a broadcast news van?

537

00:33:59,660 --> 00:34:02,660

You're going to let us try to cook a turkey on top of your van?

538

00:34:02,660 --> 00:34:04,660

Yeah, sure. Why not?

539

00:34:04,660 --> 00:34:06,660

That's how I warm up my coffee.

540

00:34:06,660 --> 00:34:12,660

ENG vans use microwave signals to send images on location back to the studio.

541

00:34:12,660 --> 00:34:16,660

Video journalist Yoli shows Tori how the beam is sent out.

542

00:34:16,660 --> 00:34:18,660

It gets bounced off of here.

543

00:34:18,660 --> 00:34:20,660

So the beam is actually being shot out of here.

544

00:34:20,660 --> 00:34:21,660

Shot out from out of here.

545

00:34:21,660 --> 00:34:22,660

And then it's bounced out.

546

00:34:22,660 --> 00:34:23,660

Okay.

547

00:34:23,660 --> 00:34:27,660

Tori puts a bird fresh from the refrigerator on its mark.

548

00:34:27,660 --> 00:34:28,660

All right.

549

00:34:28,660 --> 00:34:30,660

And checks its temperature.

550

00:34:30,660 --> 00:34:33,660

We're looking at 40 degrees Fahrenheit.

551

00:34:33,660 --> 00:34:38,660

Then the dish is raised to the sky and it's time to go live.

552

00:34:38,660 --> 00:34:40,660

We're going to let it roast for an hour, right?

553

00:34:40,660 --> 00:34:41,660

One hour.

554

00:34:41,660 --> 00:34:42,660

Okay, just tell me when.

555

00:34:42,660 --> 00:34:45,660

Okay, three, two, one.

556

00:34:46,660 --> 00:34:52,660

After an hour of airtime, it's time to see how much he heated up.

557

00:34:52,660 --> 00:34:53,660

All right.

558

00:34:53,660 --> 00:34:58,660

One hour has gone up to 60 degrees.

559

00:34:58,660 --> 00:35:03,660

His temperature rose 20 degrees, but that was only from standing in the hot sun.

560

00:35:03,660 --> 00:35:06,660

Maybe we just need something bigger.

561

00:35:06,660 --> 00:35:08,660

Yeah, that's possible.

562

00:35:08,660 --> 00:35:09,660

Ah!

563

00:35:09,660 --> 00:35:10,660

Ah!

564

00:35:10,660 --> 00:35:19,660

So it's on a board the SS Jeremiah O'Brien, a World War II cargo ship to unleash the big guns.

565

00:35:19,660 --> 00:35:21,660

Welcome aboard.

566

00:35:21,660 --> 00:35:22,660

I'm Pat Maloney.

567

00:35:22,660 --> 00:35:23,660

Carrie.

568

00:35:23,660 --> 00:35:24,660

How you doing?

569

00:35:24,660 --> 00:35:25,660

I'm Tori.

570

00:35:25,660 --> 00:35:26,660

Tori.

571

00:35:26,660 --> 00:35:27,660

Nice to meet you.

572

00:35:27,660 --> 00:35:28,660

Steady?

573

00:35:28,660 --> 00:35:29,660

Steady on that?

574

00:35:29,660 --> 00:35:30,660

I don't have my sea legs yet.

575

00:35:30,660 --> 00:35:36,660

Captain Maloney is letting our Mythbuster landlubbers try to fry on the ship's radar.

576

00:35:36,660 --> 00:35:40,660

Radars are another device that emit electromagnetic radiation.

577

00:35:40,660 --> 00:35:41,660

That should hold.

578

00:35:41,660 --> 00:35:44,660

Good, because I got birdie though watching you be up there.

579

00:35:44,660 --> 00:35:47,660

Before they begin, they take the turkey's temperature.

580

00:35:47,660 --> 00:35:48,660

Down to 50 degrees.

581

00:35:48,660 --> 00:35:51,660

So what we've got is 50 degrees Fahrenheit.

582

00:35:51,660 --> 00:35:56,660

Now the FDA says that you need at least 180 degrees Fahrenheit for it to be safe to eat.

583

00:35:56,660 --> 00:35:57,660

So that's our target.

584

00:35:57,660 --> 00:35:58,660

Let's go.

585

00:35:58,660 --> 00:36:00,660

Clear the decks.

586

00:36:00,660 --> 00:36:01,660

It's time to beam up.

587

00:36:01,660 --> 00:36:04,660

I need warp speed in five minutes so we're all dead.

588

00:36:04,660 --> 00:36:05,660

I can't do it!

589

00:36:05,660 --> 00:36:07,660

I can't do it, Captain!

590

00:36:07,660 --> 00:36:10,660

Captain Maloney fires up the radar.

591

00:36:10,660 --> 00:36:12,660

Okay, we're transmitting.

592

00:36:12,660 --> 00:36:15,660

And our turkey soars like an eagle.

593

00:36:15,660 --> 00:36:16,660

Whoa!

594

00:36:16,660 --> 00:36:18,660

That's kind of faster than I thought.

595

00:36:18,660 --> 00:36:21,660

It's spinning pretty fast.

596

00:36:21,660 --> 00:36:23,660

The turkey's been spinning for an hour.

597

00:36:23,660 --> 00:36:29,660

Plenty of time for our camera person to get all artistic and for our bird to get nice and toasty.

598

00:36:29,660 --> 00:36:32,660

I'm ready for a hot turkey sandwich.

599

00:36:32,660 --> 00:36:35,660

So how hot did it get on the inside?

600

00:36:35,660 --> 00:36:38,660

This looking ripe.

601

00:36:38,660 --> 00:36:40,660

Ripe as in cooked or ripe as in...

602

00:36:40,660 --> 00:36:42,660

Ripe as in nasty.

603

00:36:42,660 --> 00:36:43,660

What have we got?

604

00:36:43,660 --> 00:36:44,660

Are you kidding me?

605

00:36:44,660 --> 00:36:45,660

What is it?

606

00:36:45,660 --> 00:36:46,660

The temperature went down.

607

00:36:46,660 --> 00:36:50,660

Only on Mythbusters.

608

00:36:50,660 --> 00:36:52,660

It's 45 degrees.

609

00:36:52,660 --> 00:36:54,660

This one's definitely busted.

610

00:36:54,660 --> 00:37:01,660

Yeah, I was expected after an hour of exposure to the radar that we would get at least a little increase on the inside.

611

00:37:01,660 --> 00:37:03,660

We're not getting anything.

612

00:37:03,660 --> 00:37:04,660

I think it's busted.

613

00:37:04,660 --> 00:37:08,660

It's actually working better as a refrigeration system than actually cooking the turkey.

614

00:37:08,660 --> 00:37:09,660

Great busted.

615

00:37:09,660 --> 00:37:10,660

Cut her down.

616

00:37:10,660 --> 00:37:13,660

The myth's done, but not the turkey.

617

00:37:13,660 --> 00:37:15,660

Nice catch.

618

00:37:15,660 --> 00:37:18,660

For a little fun and to release some frustration,

619

00:37:18,660 --> 00:37:23,660

Tari has prepared a bird with his own recipe we cannot reveal.

620

00:37:23,660 --> 00:37:27,660

This is Mythbusters and we haven't had an explosion.

621

00:37:27,660 --> 00:37:32,660

So I've mixed up a little special stuffing and hopefully with this turkey we'll get some results.

622

00:37:32,660 --> 00:37:35,660

It's going to be Christmas without an explosion.

623

00:37:35,660 --> 00:37:37,660

He places it in the microwave.

624

00:37:37,660 --> 00:37:41,660

They seal it up to lock in all its goodness.

625

00:37:41,660 --> 00:37:43,660

There you go.

626

00:37:43,660 --> 00:37:44,660

Run.

627

00:37:44,660 --> 00:37:48,660

And the whole team waits in hungry anticipation.

628

00:37:48,660 --> 00:37:51,660

I don't know what's going to happen.

629

00:37:51,660 --> 00:37:54,660

In no time at all, the turkey is done.

630

00:37:58,660 --> 00:38:01,660

Finally dinner is served.

631

00:38:01,660 --> 00:38:03,660

Mythbusters style.

632

00:38:03,660 --> 00:38:05,660

How about a second helping?

633

00:38:12,660 --> 00:38:21,660

It's been a sweeping six week challenge to find the best mythical remedy to keep your Christmas tree looking lovely for longer.

634

00:38:21,660 --> 00:38:27,660

The fallout has been carefully collated and counted and it's time to reveal the winner.

635

00:38:27,660 --> 00:38:30,660

It's been six weeks since we started this needle drop experiment.

636

00:38:30,660 --> 00:38:33,660

I have to say, I think these results are really surprising.

637

00:38:33,660 --> 00:38:34,660

Definitely.

638

00:38:34,660 --> 00:38:39,660

I mean it's obvious that the fertilizer is probably the worst remedy to keeping needles on a tree.

639

00:38:39,660 --> 00:38:41,660

Yeah, I would have never guessed that.

640

00:38:41,660 --> 00:38:46,660

And it was only a five percent mixture to the water, but it lost four times as many needles as the control.

641

00:38:46,660 --> 00:38:50,660

I mean there's a bucket filled with needles. We couldn't even get them all in our tube.

642

00:38:50,660 --> 00:38:58,660

What's more interesting to me is the fact that every other treatment that we tried did better than just water alone in the control.

643

00:38:58,660 --> 00:39:04,660

You know what else is surprising is the bleach and the Santa's Little Helper, they lost the least amount of needles.

644

00:39:04,660 --> 00:39:08,660

Yeah, but I think this myth should also be about aesthetics as well.

645

00:39:08,660 --> 00:39:13,660

And while the bleach kept a lot of needles on the tree, it turned it a really funny color.

646

00:39:13,660 --> 00:39:19,660

Santa's Little Helper, same thing, retained the most amount of needles, but it looked really, really sickly in the end.

647

00:39:19,660 --> 00:39:28,660

Alright, well we need to find a winner. So we're going to have to find a balance between the needles that fall off and the way the tree looks like after the six weeks is up.

648

00:39:28,660 --> 00:39:36,660

Okay, well that winner is definitely hairspray. Kept a lot of needles on the tree and at the end of the six weeks, it still looked really nice.

649

00:39:36,660 --> 00:39:39,660

Alright, so we're going to be using hairspray from here on in.

650

00:39:39,660 --> 00:39:46,660

Maybe you will. I think there might be a fire hazard involved with using hairspray on a dry Christmas tree. Just me.

651

00:39:46,660 --> 00:39:47,660

And that's a problem.

652

00:39:47,660 --> 00:39:49,660

Around you? Yeah.

653

00:40:18,660 --> 00:40:19,660

Nice one.

654

00:40:20,660 --> 00:40:21,660

There it goes.

655

00:40:23,660 --> 00:40:26,660

We're good. Oh, that's good. That's looking happy.

656

00:40:27,660 --> 00:40:33,660

There goes the speeders. There it goes. It's going, it's going, it's going. Come on, baby. Yes!

657

00:40:35,660 --> 00:40:38,660

Mento's going. Mento's going.

658

00:40:38,660 --> 00:40:39,660

Mento's going.

659

00:40:43,660 --> 00:40:47,660

Oh, it's very smooth. Come on.

660

00:41:01,660 --> 00:41:02,660

Whoa, hey!

661

00:41:05,660 --> 00:41:06,660

There it is.

662

00:41:08,660 --> 00:41:09,660

Come on, baby.

663

00:41:11,660 --> 00:41:16,660

There it goes. Yes! Yes! Come on, baby. Come on, come on.

664

00:41:20,660 --> 00:41:23,660

Come on, robot. Find your home. Your home is there.

665

00:41:24,660 --> 00:41:25,660

That's it.

666

00:41:26,660 --> 00:41:27,660

Oh, yes!

667

00:41:30,660 --> 00:41:32,660

Get ready for the bang.

668

00:41:35,660 --> 00:41:36,660

The monkeys are going.

669

00:41:39,660 --> 00:41:40,660

Going fast.

670

00:41:43,660 --> 00:41:44,660

Come on.

671

00:41:46,660 --> 00:41:47,660

Yeah!

672

00:41:50,660 --> 00:41:55,660

Here's hoping you like your gift and have a holly jolly holiday season.