

1

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

3, 2, 1, go!

2

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

The Mythbusters are defying death in the quest for flight.

3

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

It's not a question of whether we'll get badly hurt, it's how badly hurt.

4

00:00:16,000 --> 00:00:25,000

And we're busy busting myths about ways to legally beat the police speed radar.

5

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

Well, it didn't disappear.

6

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

Are you surprised?

7

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

Absolutely.

8

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

Who are the Mythbusters?

9

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

Am I missing an eyebrow?

10

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

Adam Savage

11

00:00:35,000 --> 00:00:38,000

I reject the reality and substitute my own.

12

00:00:38,000 --> 00:00:39,000

And Jamie Heinemann

13

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

Crack, damn you.

14

00:00:40,000 --> 00:00:43,000

I wouldn't say Jamie's an evil genius.

15

00:00:43,000 --> 00:00:47,000

Between them, more than 30 years special effects experience.

16

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

Why don't all the fun ever stop?

17

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

They don't just tell the myths, they put them to the test.

18

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

Ever since we realized we couldn't, humans have wanted to fly like the birds.

19

00:01:07,000 --> 00:01:13,000

Gliders, hang gliders and parachutes have made non-powered flight possible.

20

00:01:13,000 --> 00:01:17,000

I've farted on you!

21

00:01:17,000 --> 00:01:22,000

But is it possible for a man to fly accidentally?

22

00:01:22,000 --> 00:01:27,000

Plywood Builder

23

00:01:27,000 --> 00:01:30,000

Plywood Builder, walk me through this one.

24

00:01:30,000 --> 00:01:36,000

Apparently a construction worker up on the top of a building was holding onto a 4x8 sheet of Plywood on a windy day.

25

00:01:36,000 --> 00:01:40,000

And the wind picks him up off the top of the building over the edge.

26

00:01:40,000 --> 00:01:49,000

Not only does he manage to hold onto the Plywood, but he controls it well enough to be able to land several floors below in the building unharmed.

27

00:01:49,000 --> 00:01:51,000

Cool, flying myth.

28

00:01:51,000 --> 00:01:54,000

What's the overall plan here? What are we going to end up doing?

29

00:01:54,000 --> 00:02:01,000

I think Buster's going for a ride with a sheet of Plywood, but ultimately if we can, one of us should take a ride.

30

00:02:01,000 --> 00:02:08,000

If I'm going to take that leap with a sheet of Plywood as my only safety, I want to do some very serious testing before we do that.

31

00:02:08,000 --> 00:02:17,000

I'm thinking scale Plywood and figure correct weights to scale and really see what kind of lift ratios we get out of this thing before we take that leap.

32

00:02:17,000 --> 00:02:24,000

No matter what you're searching for, you'll probably find it in Jamie's M5 storage system.

33

00:02:24,000 --> 00:02:25,000

Always excellent.

34

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

If you look hard enough, you might even find a mini Buster.

35

00:02:29,000 --> 00:02:31,000

Jamie, there's a guy here who seems kind of perfect.

36

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

It's a toy prototype built by Jamie.

37

00:02:34,000 --> 00:02:38,000

I think we should go for the goatee, but that's just because I like the goatee.

38

00:02:39,000 --> 00:02:43,000

Mini Buster is the right height, but is he the right weight?

39

00:02:43,000 --> 00:02:47,000

I'm roughly six feet at 180 pounds.

40

00:02:47,000 --> 00:02:49,000

You were 190.

41

00:02:49,000 --> 00:02:50,000

No.

42

00:02:50,000 --> 00:02:53,000

I'm just using some easy 190.

43

00:02:53,000 --> 00:02:56,000

Let's say stand 85 percentile male, right?

44

00:02:56,000 --> 00:02:58,000

Six feet, 180 pounds.

45

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

Proportionally, that's 72 inches to 180 pounds.

46

00:03:04,000 --> 00:03:07,000

10 inches tall, 25 pounds.

47

00:03:07,000 --> 00:03:09,000

I just did the math.

48

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

I need him to weigh 25 pounds.

49

00:03:12,000 --> 00:03:15,000

So you're saying that he needs to be built out of depleted uranium.

50

00:03:17,000 --> 00:03:18,000

Do you have some?

51

00:03:18,000 --> 00:03:21,000

Is it under G or U over here?

52

00:03:21,000 --> 00:03:25,000

Adam figures he should be calculating volume, not size.

53

00:03:25,000 --> 00:03:29,000

So in fact, mini Buster is close to being the right weight.

54

00:03:29,000 --> 00:03:34,000

The small scale testing also needs a sheet of mini ply.

55

00:03:34,000 --> 00:03:36,000

That's almost exactly 50 pounds.

56

00:03:36,000 --> 00:03:40,000

We're weighing a piece of plywood so that we can replicate this in a small scale.

57

00:03:40,000 --> 00:03:44,000

But even this tiny piece of ply is proportionately too heavy.

58

00:03:45,000 --> 00:03:49,000

Christine reduces its weight by drilling lots of small holes.

59

00:03:50,000 --> 00:03:52,000

Okay, there we go. Perfect.

60

00:03:52,000 --> 00:03:59,000

This is a scale replica of what say Adam or I with a full-size sheet of ply would be if we were 10 inches tall.

61

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

A high-speed camera will shoot mini Buster falling in front of a scale rule.

62

00:04:06,000 --> 00:04:09,000

A computer will then calculate his drop rate.

63

00:04:11,000 --> 00:04:14,000

The test is repeated with the mini ply.

64

00:04:14,000 --> 00:04:15,000

Okay, Christine.

65

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

So what did we learn with the drop tests of the mini Buster rate?

66

00:04:20,000 --> 00:04:22,000

Well, the ply would slow him down about 25%.

67

00:04:22,000 --> 00:04:25,000

25% from a fall with nothing, right?

68

00:04:25,000 --> 00:04:26,000

Yes.

69

00:04:26,000 --> 00:04:27,000

A human falling.

70

00:04:27,000 --> 00:04:28,000

Yes.

71

00:04:28,000 --> 00:04:31,000

But 25% slower is still not slow enough.

72

00:04:31,000 --> 00:04:34,000

If they tried the ply would miss themselves.

73

00:04:34,000 --> 00:04:39,000

The best that we would be able to accomplish, it sounds to me, is just broken legs and arms.

74

00:04:39,000 --> 00:04:42,000

But maybe not a broken back or a smashed skull.

75

00:04:42,000 --> 00:04:44,000

I'm willing to settle for that.

76

00:04:44,000 --> 00:04:49,000

It's too big a risk for a human, but no problem for Buster.

77

00:04:49,000 --> 00:04:55,000

That's once his rubber crash test dummy hands have been swapped for some ply would grabbing clamps.

78

00:04:55,000 --> 00:05:00,000

Let's see whether it actually will support somebody on it.

79

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

His Buster happens to be about my size and weight.

80

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

So, looks like it works.

81

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

Now Buster, this won't hurt a bit.

82

00:05:09,000 --> 00:05:14,000

So Buster's new super grip robo hands are welded to his arms.

83

00:05:14,000 --> 00:05:17,000

Plywood.

84

00:05:17,000 --> 00:05:23,000

According to the myth, the builder was holding a sheet of five ply when he took his unscheduled flight.

85

00:05:23,000 --> 00:05:28,000

That's made up of five thin sheets of timber compressed together.

86

00:05:28,000 --> 00:05:36,000

As well as trying a regular sheet, Adam and Janie will use the five individual sheets to design their own flying rigs.

87

00:05:36,000 --> 00:05:44,000

Well, my thought first off was to array them like a car leaf spring to where we extend the surface area.

88

00:05:44,000 --> 00:05:48,000

And of course, end up spinning like a helicopter all the way down.

89

00:05:48,000 --> 00:05:54,000

Which might not be a bad thing because helicopters as we know land a little softer than just the same shape without the propellers.

90

00:05:54,000 --> 00:05:56,000

Because they're spinning and they get lift from that.

91

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

Yeah, but skydivers also have what they call a death spiral.

92

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

Well, there is that.

93

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

I'm thinking of something totally different. I'm thinking of laminating them in such a way that you actually get a curve out of it.

94

00:06:07,000 --> 00:06:11,000

Sure, the original myth only involves one sheet of five ply.

95

00:06:11,000 --> 00:06:14,000

But Adam and Janie really want this to work.

96

00:06:14,000 --> 00:06:20,000

So they're using the five single sheets to build the most efficient plywood flying rigs they can.

97

00:06:20,000 --> 00:06:30,000

Adam coats the cardboard sheets with light spray-on glue and then puts them together in various five-sheet permutations.

98

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

It's a nurses hat.

99

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

Oh, nurse savage.

100

00:06:35,000 --> 00:06:43,000

So these two represent Janie and my first ideas about the best ways to slow your descent using five plies of plywood.

101

00:06:43,000 --> 00:06:48,000

And then I started to think, could you just have a little hole in the center and get a lot more square footage?

102

00:06:48,000 --> 00:06:49,000

I'll try this.

103

00:06:49,000 --> 00:06:52,000

Then I started moving towards the scoop like this.

104

00:06:52,000 --> 00:06:54,000

So it's a kind of bridge between Janie and I.

105

00:06:54,000 --> 00:06:57,000

And then we'll get to these like radical scoops.

106

00:06:57,000 --> 00:06:59,000

All of which can be done on a plywood.

107

00:06:59,000 --> 00:07:01,000

I'm not sure which approach is best.

108

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

Should we be going towards a parachute or an actual airfoil?

109

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

Well, I mean, I think we want to do one of each.

110

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

I think we want to do one parachute design, like my flying nun thing, and one wing design.

111

00:07:16,000 --> 00:07:23,000

Using the cardboard sheets to design his wing, Janie attempts to maximize surface area while not compromising strength.

112

00:07:24,000 --> 00:07:29,000

The scale prototypes for Janie's wing and Adam's parachute are complete.

113

00:07:29,000 --> 00:07:31,000

Time for a test run.

114

00:07:31,000 --> 00:07:37,000

We're going to do some drop tests with some of the first mock-ups of these flying rigs.

115

00:07:37,000 --> 00:07:45,000

I've got one that kind of looks like the flying nuns habit, and Janie's got one that's just a broad piece of as much material as he can get with a couple of stringers.

116

00:07:45,000 --> 00:07:51,000

Hopefully we'll have at least some idea what this is going to do before we actually go out and do it in full scale.

117

00:07:51,000 --> 00:07:55,000

First off, Mini Buster gets no help at all.

118

00:07:55,000 --> 00:07:57,000

Point nine seconds.

119

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

What's our next point?

120

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

Is this the Janie wing?

121

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

Yeah.

122

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

Janie wing.

123

00:08:01,000 --> 00:08:03,000

Three, two, one, go.

124

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

1.05 seconds.

125

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

Back to your drawing board.

126

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

Now for Adam's pentagonal parachute design.

127

00:08:14,000 --> 00:08:15,000

That actually wasn't too bad.

128

00:08:15,000 --> 00:08:18,000

That was the best one yet. That was 1.48 seconds.

129

00:08:19,000 --> 00:08:24,000

But Janie won't take this lying down. He refines his wing prototype.

130

00:08:24,000 --> 00:08:25,000

Ready when you are.

131

00:08:25,000 --> 00:08:27,000

Three, two...

132

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

He twists his wing to make it spin.

133

00:08:31,000 --> 00:08:32,000

1.4.

134

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

That's interesting. That's up there with the high performers on the other ones.

135

00:08:35,000 --> 00:08:36,000

Yeah.

136

00:08:36,000 --> 00:08:46,000

So we've decided on the two that we're going to make. One is the hexagonal parachute and the other one is the wing here then because this actually got almost as high a performance.

137

00:08:46,000 --> 00:08:47,000

All right.

138

00:08:47,000 --> 00:08:54,000

The cardboard scale models have done their job but the real test will come when the flying rigs go full size.

139

00:08:56,000 --> 00:09:03,000

Coming up next, the MythBusters build team exhibits model behavior as they take on the pulley speed radar.

140

00:09:03,000 --> 00:09:04,000

The wing.

141

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

We'll never get pulled over for going six miles an hour.

142

00:09:07,000 --> 00:09:12,000

And in his quest for the perfect plywood parachute, Adam Savage screws up.

143

00:09:18,000 --> 00:09:20,000

The end.

144

00:09:24,000 --> 00:09:28,000

Scotty, Carrie and Tori have been like little Santa's helpers.

145

00:09:28,000 --> 00:09:30,000

Oh, I'm going to be sick.

146

00:09:30,000 --> 00:09:39,000

Whenever Adam and Jamie have devised some Mythbusting mayhem, it's often been this trio's job to make their bosses twisted visions to have a reality.

147

00:09:39,000 --> 00:09:43,000

This time, however, they're going to be in the driver's seat.

148

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

That doesn't look right.

149

00:09:48,000 --> 00:09:52,000

All right, guys. So your first story on your own. What have you got?

150

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

Well, what we're going to try to do is legally beat the police radar.

151

00:09:55,000 --> 00:10:00,000

Legally, huh? So not the commercially available radar or laser jammers.

152

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

Exactly. We've heard all kinds of ideas like jingling your keys in front of your window.

153

00:10:05,000 --> 00:10:15,000

Disco balls, a CD from the rear view mirror, foil on your hubcaps, putting LEDs around your license plate, microwaves and covering the entire car in foil.

154

00:10:16,000 --> 00:10:18,000

So how are you going to tackle this one? What's the plan?

155

00:10:18,000 --> 00:10:23,000

Well, obviously we need to get a radar gun. We're also going to try the LiDAR, which is a laser system.

156

00:10:23,000 --> 00:10:25,000

Lift it up a little bit more.

157

00:10:25,000 --> 00:10:28,000

And to test them, the first thing they're going to need is a car.

158

00:10:28,000 --> 00:10:32,000

Earl, the Mythbusters Cadillac, should do the job.

159

00:10:32,000 --> 00:10:38,000

You remember Earl. He's the car the guys use for target practice.

160

00:10:38,000 --> 00:10:40,000

Oh, man.

161

00:10:40,000 --> 00:10:46,000

Our resident grease monkey, Scotty, has to get him back on the road to recovery.

162

00:10:46,000 --> 00:10:48,000

It's going to be stubborn.

163

00:10:48,000 --> 00:10:56,000

While Scotty coaxes the caddy back to life, Tori and Carrie do a little radar research.

164

00:10:56,000 --> 00:10:58,000

You're not working fast enough, dude.

165

00:10:58,000 --> 00:11:06,000

Now, Carrie's packing a normal radar gun. It fires microwaves that hit the target and bounce back at a slightly different frequency.

166

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

The frequency difference determines the target speed.

167

00:11:13,000 --> 00:11:17,000

Tori's wielding a laser speed gun, or LiDAR.

168

00:11:17,000 --> 00:11:23,000

It shoots a thousand samples per second of infrared laser light at the target.

169

00:11:23,000 --> 00:11:28,000

Speed is calculated by comparing the distance between each sample.

170

00:11:28,000 --> 00:11:34,000

Before we get to the real car and do tests, we want to do some sample material tests on the RC car.

171

00:11:34,000 --> 00:11:39,000

But before we can even do that, we have to make sure that the RC car will even show up on the radar gun.

172

00:11:39,000 --> 00:11:46,000

The RC car has a top speed of between 5 and 6 miles per hour. But will the radar detect it?

173

00:11:46,000 --> 00:11:49,000

Four, five. We got a reading.

174

00:11:49,000 --> 00:11:54,000

So the RC car is visible to the radar. Now, to make it invisible.

175

00:11:54,000 --> 00:11:58,000

Right now I'm making extra shells to the body of the RC car.

176

00:11:58,000 --> 00:12:03,000

Now that we know how the radar and LiDAR work, we're going to do some tests with all of our materials.

177

00:12:03,000 --> 00:12:10,000

Beautiful! It came out perfectly!

178

00:12:10,000 --> 00:12:17,000

The game of radar hide and seek has been played out since World War II and has sparked the growth of stealth technology.

179

00:12:17,000 --> 00:12:23,000

Modern stealth aircraft have flat surfaces and sharp edges.

180

00:12:23,000 --> 00:12:27,000

They're also coated with materials that absorb radar.

181

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

So every foot? Every foot.

182

00:12:29,000 --> 00:12:34,000

It'll take way too long to coat earl in all the materials the myths mention.

183

00:12:34,000 --> 00:12:39,000

The remote-controlled car is a much simpler option. But why the blue paint?

184

00:12:39,000 --> 00:12:44,000

Theoretically, it's supposed to change the wavelength of the reflective light on the LiDAR.

185

00:12:44,000 --> 00:12:47,000

So we'll see if we can pick this up at a different distance.

186

00:12:47,000 --> 00:12:50,000

Are you ready? I'm always ready.

187

00:12:50,000 --> 00:12:51,000

Okay, go!

188

00:12:51,000 --> 00:12:56,000

How fast?

189

00:12:56,000 --> 00:13:00,000

Five miles an hour? Six topping out when you get to the finish line?

190

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

We'll never get pulled over for going six miles an hour.

191

00:13:03,000 --> 00:13:09,000

Myth number two, prism tape. This stuff's used to make fishing lures.

192

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

It might fool fish, but can it rattle the radar?

193

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

Alright, yellow reflective! Go!

194

00:13:21,000 --> 00:13:26,000

Well, the reflective tape is, as far as the RC control is, it's a myth.

195

00:13:26,000 --> 00:13:29,000

I'm picking it up a lot faster than the control.

196

00:13:29,000 --> 00:13:33,000

And I have no change at all. It's the same thing. I'm picking it up just at 50 feet.

197

00:13:33,000 --> 00:13:35,000

So far, no good.

198

00:13:35,000 --> 00:13:39,000

The most common myth that we've heard of is the tinfoil, or aluminum foil.

199

00:13:39,000 --> 00:13:42,000

So what we're going to try now is the aluminum foil over the car.

200

00:13:42,000 --> 00:13:45,000

Go when you're ready.

201

00:13:45,000 --> 00:13:47,000

37.

202

00:13:47,000 --> 00:13:48,000

Is it doing anything?

203

00:13:48,000 --> 00:13:53,000

I'm actually picking it up sooner. So if you're avoiding a ticket, this is not the way to go.

204

00:13:53,000 --> 00:13:58,000

One of the myths says that an LED will mess up a LiDAR detector.

205

00:13:58,000 --> 00:14:03,000

So what I'm going to do is I'm going to rig up this test one with an LED.

206

00:14:03,000 --> 00:14:04,000

Go!

207

00:14:04,000 --> 00:14:10,000

LEDs are infrared, and they're supposed to scramble the LiDAR's infrared beam.

208

00:14:10,000 --> 00:14:11,000

So the LED do anything?

209

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

The LED seemed to have no effect on the laser.

210

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

Well, it didn't have a significant difference, but it was about 10 feet in difference.

211

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

We might want to try it on the big car as well.

212

00:14:21,000 --> 00:14:23,000

So on full scale, that could be a mile.

213

00:14:23,000 --> 00:14:28,000

The only thing left, a type of paint which is supposed to absorb radar.

214

00:14:28,000 --> 00:14:32,000

It's actually embedded with a bunch of iron and makes it really heavy.

215

00:14:32,000 --> 00:14:33,000

It goes on like frosting.

216

00:14:33,000 --> 00:14:37,000

And it's so expensive that if you were actually going to paint your car with this,

217

00:14:37,000 --> 00:14:39,000

you might as well just pay up all your speeding tickets.

218

00:14:39,000 --> 00:14:43,000

The paint's so heavy, the RC car won't even go.

219

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

Don't give up, Scotty.

220

00:14:46,000 --> 00:14:47,000

You can barely go.

221

00:14:47,000 --> 00:14:52,000

Has this myth been busted before Earl the Catty is out of the garage?

222

00:14:52,000 --> 00:14:54,000

They look really cool, guys.

223

00:14:54,000 --> 00:14:58,000

Did anything you try to have any effect on the radar's ability to detect them?

224

00:14:58,000 --> 00:15:00,000

The radar can detect all of these cars.

225

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

We also can write off the prism tape.

226

00:15:02,000 --> 00:15:04,000

It actually made it more detectable.

227

00:15:04,000 --> 00:15:07,000

It's supposed to deflect the laser, but it's actually reflecting it back better.

228

00:15:07,000 --> 00:15:12,000

So the plan now is to go with the most popular ones, like Flat Black and Tinfoil.

229

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

And we have a few tricks up our sleeve as well.

230

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

But before Scotty reveals her tricks, can Adam make plywood become plywood?

231

00:15:23,000 --> 00:15:27,000

Adam and Jamie are testing the myth of a builder flying off a skyscraper

232

00:15:27,000 --> 00:15:29,000

while holding a sheet of plywood.

233

00:15:30,000 --> 00:15:36,000

They're helping the myth out by using five single sheets to create their own flying rigs.

234

00:15:37,000 --> 00:15:42,000

After testing scale models, Adam has decided on a parachute-like design.

235

00:15:42,000 --> 00:15:44,000

And Jamie is building a wing.

236

00:15:45,000 --> 00:15:48,000

The plywood sheets may be heavy, but they're also fragile.

237

00:15:49,000 --> 00:15:52,000

Adam removes his five sheets from the twelve available.

238

00:15:52,000 --> 00:15:53,000

Screw.

239

00:15:53,000 --> 00:15:54,000

Make that eleven.

240

00:15:54,000 --> 00:15:59,000

One tore, bringing it out, trying to get it out of the way of Jay, the cameraman.

241

00:15:59,000 --> 00:16:03,000

Using a scale model, he calculates the angles for the full-size version.

242

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

He measures up the sheets, and then lays them out.

243

00:16:08,000 --> 00:16:13,000

Meanwhile, Jamie is placing the sheets for his wing on a cradle made from two-by-fours.

244

00:16:14,000 --> 00:16:15,000

Well, look at what you're doing.

245

00:16:15,000 --> 00:16:18,000

You're going to laminate it up on the curve.

246

00:16:18,000 --> 00:16:22,000

Yeah, you know, I figure we'll get the glue to actually help it hold its shape

247

00:16:22,000 --> 00:16:24,000

before we put the struts in.

248

00:16:25,000 --> 00:16:27,000

Jamie's plan is simple but effective.

249

00:16:27,000 --> 00:16:32,000

He'll achieve a curve in his wing by placing weights in the center of the plywood sheets.

250

00:16:32,000 --> 00:16:36,000

When the ply is glued, the curve should remain.

251

00:16:36,000 --> 00:16:40,000

Adam's pentagonal plywood parachute is taking shape.

252

00:16:40,000 --> 00:16:44,000

He's just got to remember those sheets are really fragile.

253

00:16:47,000 --> 00:16:51,000

Now they're down to ten sheets, and there's no room for error.

254

00:16:53,000 --> 00:16:57,000

The last sheet of ply is found and slid into place carefully.

255

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

Got it?

256

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

Alright, cool. You can let that down. Thanks, Adam.

257

00:17:04,000 --> 00:17:05,000

That was a pain in the ass.

258

00:17:06,000 --> 00:17:08,000

Jamie's wing is looking good.

259

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

Oh, and I want to put the strip down.

260

00:17:11,000 --> 00:17:14,000

Narrow strips of ply are used as strengtheners.

261

00:17:14,000 --> 00:17:16,000

Yeah, charm.

262

00:17:16,000 --> 00:17:19,000

Okay, now we've got to bring the pipe in.

263

00:17:20,000 --> 00:17:26,000

Finally, the curve is achieved by adding whatever weights Jamie and Christine can find.

264

00:17:26,000 --> 00:17:27,000

There we go.

265

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

I'm actually really happy how this came out.

266

00:17:30,000 --> 00:17:34,000

And tomorrow when the glue is set, we'll remove all the wood,

267

00:17:34,000 --> 00:17:38,000

and hopefully this will retain as much as possible of this curve.

268

00:17:38,000 --> 00:17:43,000

This will give us something to work off of for the final touch, which is the twist.

269

00:17:43,000 --> 00:17:47,000

Because I'm going to put a diagonal on this that'll torque this thing a little bit

270

00:17:47,000 --> 00:17:50,000

and create a propeller shape, which gives us the spin,

271

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

and the spin gives us the lift, which slows us down.

272

00:17:53,000 --> 00:17:56,000

Coming up, it's Buster vs. Gravity.

273

00:17:57,000 --> 00:18:00,000

And there can be only one winner.

274

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

I never get tired of doing that.

275

00:18:02,000 --> 00:18:06,000

Plus, a police radar myth is totally blown away.

276

00:18:08,000 --> 00:18:09,000

Good. It works.

277

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

Could a builder fly through the air on a sheet of plywood?

278

00:18:19,000 --> 00:18:25,000

Adam and Jamie have glued together two plywood flying rigs for Buster to find out.

279

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

But how will they know if Buster survives?

280

00:18:28,000 --> 00:18:33,000

Jamie, a key part of this myth is going to be how lethal is Buster's impact when he lands.

281

00:18:33,000 --> 00:18:38,000

And we have installed auto industry computer accelerometers in him before

282

00:18:38,000 --> 00:18:40,000

with greater and lesser degrees of success.

283

00:18:40,000 --> 00:18:43,000

I mean, we're always entering myth Buster's meter hell.

284

00:18:43,000 --> 00:18:45,000

I think it's time that we build our own GeForce meter.

285

00:18:45,000 --> 00:18:48,000

Yeah, you know, if we can't find it, we'll build it ourselves.

286

00:18:48,000 --> 00:18:49,000

Exactly.

287

00:18:51,000 --> 00:18:54,000

Inspiration comes to Adam in the form of a light bulb.

288

00:18:54,000 --> 00:19:00,000

I'm hoping that these light bulbs will end up being the sort of soul of myth Buster's home-built

G-Meter.

289

00:19:00,000 --> 00:19:05,000

We're going to put these inside a ball so that they break at a fatal amount of GeForce.

290

00:19:05,000 --> 00:19:11,000

And to add a little drama and realism, the bulbs are filled with fake blood.

291

00:19:11,000 --> 00:19:13,000

If they break, we'll know it.

292

00:19:13,000 --> 00:19:17,000

Isn't that cool? Don't you have all these same nithverious thoughts?

293

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

Hey, you're dripping it.

294

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

The bulb is sealed and placed inside a pair of aluminum sugar scoops.

295

00:19:24,000 --> 00:19:25,000

You ready?

296

00:19:25,000 --> 00:19:26,000

Yeah.

297

00:19:26,000 --> 00:19:27,000

Time for a test drop.

298

00:19:27,000 --> 00:19:29,000

This should be the non-lethal distance.

299

00:19:32,000 --> 00:19:33,000

It made it.

300

00:19:33,000 --> 00:19:34,000

That's good.

301

00:19:34,000 --> 00:19:35,000

All right, I'm going to try the high point.

302

00:19:35,000 --> 00:19:36,000

Ready?

303

00:19:36,000 --> 00:19:37,000

Yeah.

304

00:19:39,000 --> 00:19:40,000

Wow.

305

00:19:40,000 --> 00:19:42,000

It looks gruesome, doesn't it?

306

00:19:42,000 --> 00:19:44,000

Oh, and a horror show.

307

00:19:44,000 --> 00:19:49,000

The new G-Force meter is instantly christened the Ball of Death.

308

00:19:49,000 --> 00:19:56,000

The myth Buster's have turned decades of occupational health and safety death descriptions into a figure for brain death.

309

00:19:56,000 --> 00:20:00,000

80 G's for just 32,000ths of a second.

310

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

Because the ball is solid metal, it builds up a lot of G-Force in just a small drop.

311

00:20:06,000 --> 00:20:11,000

But once it's cushioned by Buster's head, it'll survive a much bigger drop.

312

00:20:13,000 --> 00:20:16,000

Jamie has used weights to curve the plywood for his wing.

313

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

But what will happen when the weights are removed?

314

00:20:21,000 --> 00:20:22,000

Jamie, this looks great, man.

315

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

It looks like it held its curve quite nicely.

316

00:20:24,000 --> 00:20:26,000

It was pretty darn rigid.

317

00:20:26,000 --> 00:20:28,000

Yeah, it actually is holding its shape quite nicely.

318

00:20:28,000 --> 00:20:30,000

Have fun flying with it.

319

00:20:30,000 --> 00:20:31,000

Yeah.

320

00:20:31,000 --> 00:20:37,000

Hopefully, Adam's plywood parachute will cause a little motion sickness.

321

00:20:37,000 --> 00:20:43,000

He's left one section unglued so it can be pulled together to form the plywood into a dish shape.

322

00:20:43,000 --> 00:20:44,000

Hey, Jamie.

323

00:20:44,000 --> 00:20:47,000

I'm gonna make some help with this.

324

00:20:47,000 --> 00:20:51,000

Be careful on a blink, you're gonna end up with a split right along that line.

325

00:20:54,000 --> 00:20:57,000

Jamie and Adam's plywood creations are nearly done.

326

00:20:57,000 --> 00:21:01,000

Jamie uses a diagonal cord to increase the twist on his wing.

327

00:21:01,000 --> 00:21:02,000

Okay, now let it go.

328

00:21:02,000 --> 00:21:04,000

That's more like it.

329

00:21:04,000 --> 00:21:06,000

Yeah, that's a lot better.

330

00:21:06,000 --> 00:21:09,000

And Adam, well, he's just Adam.

331

00:21:12,000 --> 00:21:15,000

Jamie's wing made it outside and into the truck easily.

332

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

But Adam's plywood parachute is a pretty close shave.

333

00:21:20,000 --> 00:21:22,000

That just barely fit in there.

334

00:21:22,000 --> 00:21:23,000

Yeah.

335

00:21:25,000 --> 00:21:31,000

The Flying Plywood Test Site is at Hamilton Base in Novato, an hour north of San Francisco.

336

00:21:33,000 --> 00:21:35,000

I don't want one of these for myself.

337

00:21:36,000 --> 00:21:42,000

After 47 years as an Air Force bomber and fighter base, Hamilton closed in 1976.

338

00:21:44,000 --> 00:21:48,000

The old control tower will be the ideal place to drop busters.

339

00:21:48,000 --> 00:21:50,000

I think we're gonna need to use the crane to get up here.

340

00:21:50,000 --> 00:21:52,000

Well, that's what the crane's for.

341

00:21:52,000 --> 00:21:53,000

Shouldn't be a problem.

342

00:21:53,000 --> 00:21:55,000

That's perfect.

343

00:21:56,000 --> 00:22:06,000

We're actually gonna do some drop tests with buster and some various things that are mythically held to be able to help you survive a fall from several stories.

344

00:22:09,000 --> 00:22:11,000

I just moved this over here.

345

00:22:13,000 --> 00:22:16,000

Nothing much has changed in the last hundred years.

346

00:22:17,000 --> 00:22:19,000

Hey, could someone let me out?

347

00:22:21,000 --> 00:22:24,000

The test will take place in front of a scale ruler.

348

00:22:25,000 --> 00:22:31,000

A computer attached to the high-speed camera will then be able to determine the exact drop rates.

349

00:22:32,000 --> 00:22:38,000

When buster drops, the ball of death G-force meter will tell us whether he survives or not.

350

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

Okay, be careful with this guy now. He has a brain.

351

00:22:42,000 --> 00:22:47,000

Buster will be raised up on the crane and then dropped on cue via a cable quick release.

352

00:22:47,000 --> 00:22:51,000

Once you get up in position, push the blue button and pull out the safety pin.

353

00:22:51,000 --> 00:22:52,000

Okay.

354

00:22:52,000 --> 00:22:55,000

When you pull out the safety pin, it's live and when you yank on this, he'll drop.

355

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

Up goes buster, 60 feet up.

356

00:22:58,000 --> 00:23:00,000

Man, buster is toast.

357

00:23:01,000 --> 00:23:09,000

So they can work out if the flying aids do slow him down, buster's first drop will be totally unassisted and very painful.

358

00:23:09,000 --> 00:23:12,000

3, 2, 1, go.

359

00:23:12,000 --> 00:23:20,000

I was laying on the ground when he hit and I felt the ground move a little bit.

360

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

I never get tired of doing that.

361

00:23:25,000 --> 00:23:32,000

The high-speed camera reveals buster is traveling between 34 and 35 miles per hour when he hits the ground.

362

00:23:33,000 --> 00:23:34,000

What's the verdict, Christine?

363

00:23:34,000 --> 00:23:35,000

I think he's dead.

364

00:23:37,000 --> 00:23:38,000

That's a shocker.

365

00:23:39,000 --> 00:23:42,000

Buster kind of looked like a baby bird that just fell out of the nest.

366

00:23:56,000 --> 00:24:04,000

Since the police started using speed radar back in the 1960s, there have been a lot of myths about legal ways to beat it.

367

00:24:05,000 --> 00:24:06,000

Are you ready?

368

00:24:06,000 --> 00:24:11,000

Scotty Carriantori used an RC car to put some of these myths to the test.

369

00:24:12,000 --> 00:24:14,000

How fast? 5 miles an hour?

370

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

Now they're rigging up Earl, the myth buster's caddy, for a full-scale speed radar assault.

371

00:24:21,000 --> 00:24:25,000

I'm making a wheel made of mirrors that catches the wind.

372

00:24:25,000 --> 00:24:34,000

As the mirrors get to the back side of this wheel, they should reflect the radar back and fool the radar and to think we're going slower than we actually are.

373

00:24:34,000 --> 00:24:40,000

They plan to attach an array of mirrors to a bicycle wheel which will spin on top of the car.

374

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

But Jamie's got other ideas.

375

00:24:42,000 --> 00:24:49,000

You get that thing spinning at 20 miles an hour, it's going to just, the glass is going to shatter, things are going to vibrate itself apart.

376

00:24:49,000 --> 00:24:53,000

I think you should get some three-quarter inch birch ply, a big rod compass.

377

00:24:53,000 --> 00:24:58,000

Draw yourself your three-foot diameter circle and faceted off.

378

00:24:59,000 --> 00:25:02,000

Suddenly this radar rig isn't so simple.

379

00:25:02,000 --> 00:25:06,000

Jamie's just turned it into a big, complicated build.

380

00:25:06,000 --> 00:25:09,000

Still, it gives Scotty a bit more time to work on the caddy.

381

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

Come on!

382

00:25:11,000 --> 00:25:13,000

It looks like she might need it.

383

00:25:15,000 --> 00:25:18,000

Meanwhile, Carri's working on another myth.

384

00:25:18,000 --> 00:25:22,000

I'm making a chaff gun that we can explode out the side of the caddy right now.

385

00:25:22,000 --> 00:25:31,000

Cutting up the foil into little pieces, loading it up like a potato gun and shooting it off a fire extinguisher.

386

00:25:33,000 --> 00:25:40,000

During World War II, aircraft under attack dropped large clouds of chaff to confuse enemy radar.

387

00:25:40,000 --> 00:25:45,000

The chaff was just small pieces of foil which hit the plane's exact location.

388

00:25:46,000 --> 00:25:49,000

I love it when things fit perfectly.

389

00:25:49,000 --> 00:25:53,000

The chaff gun is powered by a modified fire extinguisher.

390

00:25:53,000 --> 00:25:58,000

And the test firing is a success.

391

00:25:58,000 --> 00:26:01,000

So glad I gave up my desk job.

392

00:26:01,000 --> 00:26:03,000

Did you ever have a desk job?

393

00:26:03,000 --> 00:26:05,000

Second floor reception.

394

00:26:05,000 --> 00:26:09,000

Carri's also heard a myth about microwaves messing with radar.

395

00:26:09,000 --> 00:26:14,000

I'm stripping the magnetron out of this microwave so we can mount it in the front of the caddy.

396

00:26:14,000 --> 00:26:18,000

And that way we shoot microwaves back at the radar and the lidar.

397

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

Well, if it doesn't beat the radar, maybe it'll intimidate the cop.

398

00:26:32,000 --> 00:26:39,000

The LEDs didn't trick the lidar when they were mounted on the remote control car, but Tarry thinks they're worth another try.

399

00:26:39,000 --> 00:26:44,000

300 LEDs will be wired up to the caddy's license plate.

400

00:26:44,000 --> 00:26:47,000

Finally, it looks like we're ready to roll.

401

00:26:47,000 --> 00:26:50,000

Revolving mirror rig, check.

402

00:26:50,000 --> 00:26:52,000

Microwave gun, check.

403

00:26:52,000 --> 00:26:54,000

If I were you, I'd stay farther away from that.

404

00:26:54,000 --> 00:26:57,000

Chaff gun, check.

405

00:26:58,000 --> 00:27:01,000

LED license plate, check.

406

00:27:01,000 --> 00:27:04,000

Now, do we have a car?

407

00:27:04,000 --> 00:27:07,000

Whoa, that doesn't look right.

408

00:27:07,000 --> 00:27:10,000

After the break, this is going to freak them out.

409

00:27:10,000 --> 00:27:17,000

Earl hits the road and it's MythBusters vs. the California Highway Patrol in the great radar rumble.

410

00:27:17,000 --> 00:27:18,000

It's illegal?

411

00:27:18,000 --> 00:27:19,000

Absolutely.

412

00:27:19,000 --> 00:27:25,000

And later in the show, the plywood builder myth is finally put to the test.

413

00:27:25,000 --> 00:27:29,000

One, we'll buster fly or fall.

414

00:27:39,000 --> 00:27:48,000

This is the California Highway Patrol Academy training course, and it's the ideal place to see if our Cadillac can slip underneath the radar.

415

00:27:48,000 --> 00:27:53,000

A few of the guys from CHIPS are on hand to oversee the experiment.

416

00:27:53,000 --> 00:27:57,000

If anything does beat the radar, they want to know about it.

417

00:28:01,000 --> 00:28:03,000

This is going to freak them out.

418

00:28:03,000 --> 00:28:09,000

So a lot of the tricked out cars I've seen, they've had a CD dangling from the mirror, or they've had LEDs around their license plate.

419

00:28:09,000 --> 00:28:10,000

Does this do anything?

420

00:28:10,000 --> 00:28:13,000

It's not going to do anything, and plus they're both illegal.

421

00:28:13,000 --> 00:28:14,000

It's illegal?

422

00:28:14,000 --> 00:28:17,000

You can't have anything hanging down from your mirror. It's going to obstruct the drivers of you.

423

00:28:17,000 --> 00:28:22,000

We're going to try to get through the techniques that we think are kind of dumb first, so we're going to do them all together.

424

00:28:22,000 --> 00:28:24,000

Can you detach that to the mirror?

425

00:28:24,000 --> 00:28:30,000

All these shiny accessories are supposed to bounce back the radar's rays and confuse it.

426

00:28:30,000 --> 00:28:32,000

Which by the way, that's illegal.

427

00:28:32,000 --> 00:28:34,000

But it looks so cool.

428

00:28:36,000 --> 00:28:40,000

Lastly, can you jiggle these keys to make sure it hits the radar?

429

00:28:43,000 --> 00:28:45,000

That is so stupid.

430

00:28:45,000 --> 00:28:50,000

On each pass, Scotty will keep the Caddy steady at just under 50 miles per hour.

431

00:28:50,000 --> 00:28:53,000

We've got to do a test. Are you ready?

432

00:28:53,000 --> 00:28:59,000

Okay, the disco debilical is locked, loaded, and ready to freak out the radar.

433

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

Over.

434

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

Whenever you're ready, over.

435

00:29:02,000 --> 00:29:03,000

On my way.

436

00:29:06,000 --> 00:29:07,000

Got it on radar.

437

00:29:11,000 --> 00:29:12,000

39, 40.

438

00:29:16,000 --> 00:29:18,000

48, up to speed. 49.

439

00:29:21,000 --> 00:29:22,000

I have...

440

00:29:26,000 --> 00:29:27,000

I love that sound.

441

00:29:28,000 --> 00:29:33,000

So, keys, disco ball, CD, busted. No effect whatsoever.

442

00:29:33,000 --> 00:29:34,000

Are you surprised?

443

00:29:34,000 --> 00:29:35,000

Absolutely.

444

00:29:36,000 --> 00:29:38,000

Alright, next let's do foil on the hubcaps.

445

00:29:38,000 --> 00:29:39,000

Done.

446

00:29:40,000 --> 00:29:44,000

The next radar myth. Tin foil on the hubcaps.

447

00:29:44,000 --> 00:29:46,000

Scotty, hit it.

448

00:29:47,000 --> 00:29:51,000

700 feet. 47 miles an hour.

449

00:29:51,000 --> 00:29:57,000

Once again though, the radar and the lidar have a fix on Scotty all the way.

450

00:29:57,000 --> 00:29:58,000

Still jiggling the keys?

451

00:29:58,000 --> 00:29:59,000

Still doesn't work.

452

00:29:59,000 --> 00:30:01,000

Maybe that was too subtle.

453

00:30:07,000 --> 00:30:13,000

I think maybe people think that because it's kind of crumbly that the radar will shoot at the crumbles and maybe dissipate.

454

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

But it's just one giant reflector if you ask me.

455

00:30:16,000 --> 00:30:18,000

We'll be able to see it from outer space.

456

00:30:20,000 --> 00:30:22,000

Yeah, she's going fast.

457

00:30:22,000 --> 00:30:25,000

I'm just picking it up way sooner.

458

00:30:31,000 --> 00:30:33,000

Foils been foiled.

459

00:30:33,000 --> 00:30:36,000

We'll see if the LEDs can light up this experiment.

460

00:30:36,000 --> 00:30:38,000

One infrared license plate.

461

00:30:38,000 --> 00:30:39,000

Perfect.

462

00:30:39,000 --> 00:30:46,000

Alright, so the theory here is that these infrared LEDs are on the same wavelength and have enough intensity to fool the lidar.

463

00:30:46,000 --> 00:30:54,000

300 LEDs are emitting infrared, but the lidar's own infrared beam is locked on all down the line.

464

00:30:54,000 --> 00:30:55,000

47.

465

00:30:58,000 --> 00:30:59,000

Busted.

466

00:30:59,000 --> 00:31:03,000

Okay, let's try Kerry's magnetron gun.

467

00:31:03,000 --> 00:31:05,000

Yes, I know I spelled magnetron wrong.

468

00:31:09,000 --> 00:31:12,000

That's supposed to have an E. Don't email me.

469

00:31:12,000 --> 00:31:15,000

That jumped up so fast. It is definitely working.

470

00:31:15,000 --> 00:31:22,000

The K-band radar operates in about the same frequency as a microwave, so we're going to shoot microwaves towards it to try to confuse it.

471

00:31:22,000 --> 00:31:24,000

I got a 49.

472

00:31:24,000 --> 00:31:27,000

But the radar still has the caddy in its sights.

473

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

No change at all.

474

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

The magnetron theory is busted.

475

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

I had no difference in the speed.

476

00:31:33,000 --> 00:31:36,000

I got like 48 miles an hour. Is that what you guys got?

477

00:31:36,000 --> 00:31:38,000

Yeah, and I picked her up right away.

478

00:31:38,000 --> 00:31:43,000

Maybe the aluminum foil firing chaff gun will be able to trick the radar.

479

00:31:43,000 --> 00:31:45,000

Got it, Sky!

480

00:31:45,000 --> 00:31:50,000

As the caddy passes the radar, Kerry will trigger the chaff gun from the back seat.

481

00:31:51,000 --> 00:31:53,000

It didn't go!

482

00:31:55,000 --> 00:31:56,000

Why didn't it go?

483

00:31:56,000 --> 00:31:59,000

I have a feeling she forgot to pull the pin.

484

00:32:00,000 --> 00:32:01,000

Look at it.

485

00:32:02,000 --> 00:32:04,000

Oh my God.

486

00:32:05,000 --> 00:32:08,000

I'm a total dumbass!

487

00:32:08,000 --> 00:32:10,000

I don't know what's going on!

488

00:32:10,000 --> 00:32:13,000

A quick reload and we're ready for take two.

489

00:32:19,000 --> 00:32:22,000

This time, Kerry's right on cue.

490

00:32:22,000 --> 00:32:25,000

But again, the radar is unaffected.

491

00:32:25,000 --> 00:32:27,000

It all blew to the side.

492

00:32:27,000 --> 00:32:29,000

Which is going to be more expensive.

493

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

The speeding ticket or the littering ticket?

494

00:32:31,000 --> 00:32:33,000

The littering ticket.

495

00:32:35,000 --> 00:32:39,000

Alright, now my favorite, the wheel of death.

496

00:32:39,000 --> 00:32:45,000

The mirrors on the wheel of death are supposed to be revolving at a slower speed than Earl is traveling.

497

00:32:45,000 --> 00:32:50,000

Will the radar detect the speed of the mirrors or the speed of the caddy?

498

00:32:50,000 --> 00:32:52,000

46, 47.

499

00:32:52,000 --> 00:32:55,000

The radar result is exactly the same.

500

00:32:55,000 --> 00:32:57,000

44, 42, 40.

501

00:32:57,000 --> 00:32:59,000

Kerry detects an anomaly.

502

00:32:59,000 --> 00:33:06,000

It's giving a weird Doppler reading, but overall it's not really making it look like it's going any slower.

503

00:33:06,000 --> 00:33:10,000

There's only one thing left to do to try and make the caddy stealthy.

504

00:33:10,000 --> 00:33:13,000

Cover the car with matte black paint.

505

00:33:13,000 --> 00:33:18,000

Will the matte finish reduce the car's reflectivity and absorb the radar signal?

506

00:33:18,000 --> 00:33:21,000

This is the moment where we think we may have the edge.

507

00:33:23,000 --> 00:33:24,000

What do you got?

508

00:33:24,000 --> 00:33:25,000

I got 48.

509

00:33:25,000 --> 00:33:26,000

47.

510

00:33:26,000 --> 00:33:27,000

47.

511

00:33:27,000 --> 00:33:28,000

47.

512

00:33:28,000 --> 00:33:29,000

47.

513

00:33:31,000 --> 00:33:32,000

Okay.

514

00:33:32,000 --> 00:33:34,000

Got it right away.

515

00:33:34,000 --> 00:33:37,000

That was our best bet and it's busted.

516

00:33:37,000 --> 00:33:40,000

Time for the guys to report back to Adam and Jamie.

517

00:33:40,000 --> 00:33:43,000

Well, we tried almost every theory that we heard.

518

00:33:43,000 --> 00:33:48,000

The only thing that gave us any result, but just barely, is my favorite.

519

00:33:48,000 --> 00:33:50,000

And I think you're going to like this one, Adam.

520

00:33:51,000 --> 00:33:53,000

The radar wheel of death.

521

00:33:53,000 --> 00:33:54,000

Oh my God.

522

00:33:54,000 --> 00:33:56,000

What did this actually do?

523

00:33:56,000 --> 00:33:57,000

Hardly anything at all.

524

00:33:57,000 --> 00:34:01,000

It just buried the audio tone that the radar sent back that let you know how fast the car was

going.

525

00:34:01,000 --> 00:34:05,000

I think if you're going to get out of a ticket, short skirts and crying is still the way to go.

526

00:34:10,000 --> 00:34:15,000

After the break, Adam makes the plywood jump into the unknown.

527

00:34:16,000 --> 00:34:19,000

But is Buster up to the challenge?

528

00:34:19,000 --> 00:34:21,000

Oh, I can tell you're feeling it.

529

00:34:21,000 --> 00:34:22,000

Oh, he's ready.

530

00:34:27,000 --> 00:34:32,000

It's been a bad day for Buster.

531

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

He's lost his head.

532

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

They've amputated his hands, they've operated on his skull and they've made him bleed.

533

00:34:40,000 --> 00:34:42,000

Could it get any worse?

534

00:34:42,000 --> 00:34:44,000

Buster's going to die.

535

00:34:44,000 --> 00:34:51,000

While they're at Hamilton base, Adam and Jamie are using Buster to test out a few other flying myths, like umbrellas.

536

00:34:51,000 --> 00:34:54,000

All right, safety device number one.

537

00:34:56,000 --> 00:35:01,000

Buster's first mythical safety device is an open rain umbrella.

538

00:35:01,000 --> 00:35:04,000

Well, at least he won't get wet.

539

00:35:04,000 --> 00:35:08,000

Three, two, one, go.

540

00:35:13,000 --> 00:35:16,000

That was great, Jamie. Come on down.

541

00:35:16,000 --> 00:35:19,000

Well, it actually held up quite well.

542

00:35:19,000 --> 00:35:23,000

I'm looking forward to see if it slowed his fall even a little bit.

543

00:35:23,000 --> 00:35:29,000

There's plenty of fake blood, but the ball of death reveals a surprise.

544

00:35:29,000 --> 00:35:32,000

That's not that broken at all.

545

00:35:32,000 --> 00:35:34,000

There's one of two conclusions we can draw from this.

546

00:35:34,000 --> 00:35:39,000

Either the umbrella did a significant job in slowing his speed,

547

00:35:39,000 --> 00:35:43,000

or we're a little incompetent with our home-built G-meter.

548

00:35:43,000 --> 00:35:46,000

And personally, I vote for the second one.

549

00:35:46,000 --> 00:35:49,000

The high-speed camera reveals what really happened.

550

00:35:49,000 --> 00:35:50,000

Feet first.

551

00:35:50,000 --> 00:35:56,000

So because the umbrella held him upright, he actually fell faster this time, 38 miles per hour.

552

00:35:56,000 --> 00:35:58,000

Yeah, but what about the impact?

553

00:35:58,000 --> 00:36:00,000

Speed isn't the only factor in a fall.

554

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

How you impact also affects survivability.

555

00:36:04,000 --> 00:36:09,000

In his free fall, Buster's head and body hit the ground at the same time.

556

00:36:09,000 --> 00:36:15,000

Even though the umbrella drop was faster, Buster's body acted like a shock absorber,

557

00:36:15,000 --> 00:36:18,000

greatly reducing the impact on his head.

558

00:36:18,000 --> 00:36:22,000

That's why the ball of death only cracked.

559

00:36:22,000 --> 00:36:23,000

He's probably dead anyway.

560

00:36:23,000 --> 00:36:24,000

Oh, you're dead.

561

00:36:24,000 --> 00:36:26,000

Let's get the big picnic umbrella.

562

00:36:26,000 --> 00:36:27,000

All right. Are you ready?

563

00:36:27,000 --> 00:36:28,000

Oh, yeah.

564

00:36:28,000 --> 00:36:29,000

Cool.

565

00:36:29,000 --> 00:36:30,000

Here we go.

566

00:36:30,000 --> 00:36:37,000

In five, four, three, two, one, drop.

567

00:36:42,000 --> 00:36:44,000

That was pretty cool.

568

00:36:44,000 --> 00:36:47,000

That didn't look entirely unsuccessful.

569

00:36:49,000 --> 00:36:52,000

I'm trying to keep a straight face, but I take the...

570

00:36:52,000 --> 00:36:57,000

The picnic umbrella reduces Buster's speed to 29 miles per hour.

571

00:36:57,000 --> 00:37:00,000

Slower, but not slow enough.

572

00:37:00,000 --> 00:37:03,000

Uh, he's dead.

573

00:37:03,000 --> 00:37:07,000

It's no myth that a parachute is designed for this purpose,

574

00:37:07,000 --> 00:37:10,000

but can it open in only 60 feet?

575

00:37:10,000 --> 00:37:12,000

One, go.

576

00:37:13,000 --> 00:37:18,000

That worked almost stunningly well.

577

00:37:18,000 --> 00:37:21,000

Buster's down to 28 miles per hour,

578

00:37:21,000 --> 00:37:25,000

but unfortunately, his head smashes into his own knee.

579

00:37:25,000 --> 00:37:29,000

I'm sorry. We did everything in our power.

580

00:37:29,000 --> 00:37:31,000

Buster didn't skip.

581

00:37:31,000 --> 00:37:33,000

Get off of me, pervert.

582

00:37:33,000 --> 00:37:37,000

He's a poor defenseless dummy, and look what she's doing.

583

00:37:38,000 --> 00:37:43,000

Finally, the original Flying Builder myth is to be put to the test.

584

00:37:43,000 --> 00:37:46,000

He's going to die, but it's going to look great.

585

00:37:46,000 --> 00:37:48,000

You're acting weird, aren't you?

586

00:37:48,000 --> 00:37:56,000

Remember, in the myth, the Falling Builder is able to glide gracefully back inside the skyscraper, totally unharmed.

587

00:37:56,000 --> 00:37:58,000

Go.

588

00:37:58,000 --> 00:38:01,000

Buster was such a good dummy.

589

00:38:01,000 --> 00:38:08,000

Rather than slowing him down, the plywood increases Buster's velocity to over 36 miles per hour.

590

00:38:08,000 --> 00:38:12,000

His body snaps the five-ply sheet in half.

591

00:38:12,000 --> 00:38:15,000

He's got blood dripping out the back of his head.

592

00:38:15,000 --> 00:38:17,000

Oh.

593

00:38:17,000 --> 00:38:19,000

Getting used to all this blood, Christine?

594

00:38:19,000 --> 00:38:21,000

Still grosses me out.

595

00:38:21,000 --> 00:38:29,000

We can look at the speed test, and we can look at the death ball, but I don't think I need to see either of them to say this one's busted.

596

00:38:29,000 --> 00:38:31,000

I'm going to go for the speed test.

597

00:38:31,000 --> 00:38:33,000

I'm going to go for the speed test.

598

00:38:33,000 --> 00:38:35,000

I'm going to go for the speed test.

599

00:38:35,000 --> 00:38:37,000

I'm going to go for the speed test.

600

00:38:37,000 --> 00:38:44,000

I don't think I need to see either of them to say this one's busted.

601

00:38:44,000 --> 00:38:46,000

Yeah, I'm afraid so.

602

00:38:46,000 --> 00:38:48,000

He went straight down.

603

00:38:48,000 --> 00:38:54,000

There was no deflection off to the side or anything, and he's done for it.

604

00:38:54,000 --> 00:38:56,000

Let's go get our solutions.

605

00:38:56,000 --> 00:38:58,000

Let's go try my wooden parachute.

606

00:38:58,000 --> 00:39:00,000

Okay.

607

00:39:00,000 --> 00:39:06,100

have taken the five component layers of the plywood sheet and created two flying rigs for Buster to try.

608

00:39:07,940 --> 00:39:13,180

Jamie's design is based on a spinning wing and Adams is modeled on the parachute.

609

00:39:14,220 --> 00:39:19,180

These rigs represent three days of skill, passion and effort.

610

00:39:19,780 --> 00:39:21,780

Pity really.

611

00:39:25,860 --> 00:39:27,860

Oh fat lot of connected.

612

00:39:30,180 --> 00:39:33,180

And that's why they don't make parachutes out of wood.

613

00:39:33,180 --> 00:39:35,180

Oh well, the best laid plans.

614

00:39:35,180 --> 00:39:37,180

It was a nice idea.

615

00:39:37,180 --> 00:39:38,180

Nice try.

616

00:39:38,180 --> 00:39:40,180

It worked most of the way.

617

00:39:40,180 --> 00:39:44,680

I'm taking solace in the fact that your wing is going to fail so utterly spectacularly.

618

00:39:44,680 --> 00:39:46,680

You're probably right.

619

00:39:46,680 --> 00:39:48,680

But then you never know.

620

00:39:48,680 --> 00:39:49,680

Then you never know.

621

00:39:49,680 --> 00:39:53,680

Jamie is quietly confident his rig will do the job.

622

00:39:53,680 --> 00:39:58,180

Four, three, two, one, go!

623

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

Hahaha!

624

00:40:10,000 --> 00:40:12,000

Do you feel better now?

625

00:40:12,000 --> 00:40:14,000

I do. I feel a lot better.

626

00:40:14,000 --> 00:40:19,000

All this Buster dropping has created an impromptu MythBusters fan club.

627

00:40:19,000 --> 00:40:22,000

So Adam, what do you think? Did he go slower at all?

628

00:40:22,000 --> 00:40:25,000

At least he didn't flip over again until the right at the last minute.

629

00:40:25,000 --> 00:40:31,000

He didn't spin at all and then he went totally sideways and landed on its edge and he just collapsed with it.

630

00:40:31,000 --> 00:40:33,000

It was a horror show.

631

00:40:33,000 --> 00:40:36,000

And unfortunately he was off center and the high speed camera caught none of it.

632

00:40:36,000 --> 00:40:38,000

Bummer.

633

00:40:39,000 --> 00:40:41,000

Oh man, poor guy.

634

00:40:46,000 --> 00:40:48,000

And the crowds verdict.

635

00:40:48,000 --> 00:40:51,000

We win! We win! We win!

636

00:40:55,000 --> 00:40:57,000

That was better than I could have ever hoped.

637

00:40:57,000 --> 00:41:00,000

Buster's day has come to an end.

638

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

Now it's time to see if a MythBuster can fly.

639

00:41:04,000 --> 00:41:09,000

Adam and Jamie rig up the zipline from the control tower to the crane.

640

00:41:09,000 --> 00:41:12,000

The crane backs away to tighten the cable.

641

00:41:12,000 --> 00:41:14,000

Stop!

642

00:41:14,000 --> 00:41:16,000

We're totally looking forward to flying with a piece of plywood.

643

00:41:16,000 --> 00:41:26,000

Even though Buster took a hard hit from it, we're doing a more controlled test so that hopefully Jamie and I won't get horrible head trouble while doing it.

644

00:41:26,000 --> 00:41:28,000

We're ready to go.

645

00:41:28,000 --> 00:41:35,000

But it is always a strange thing to throw yourself out over the edge of a 60 foot drop. Your body resists it.

646

00:41:35,000 --> 00:41:41,000

But this is the only way to find out if it's possible to control the plywood sheet in flight.

647

00:41:42,000 --> 00:41:44,000

We have lived up to it.

648

00:41:51,000 --> 00:41:53,000

I farted on you!

649

00:41:59,000 --> 00:42:01,000

Forget about controlling this thing.

650

00:42:01,000 --> 00:42:03,000

There's no control.

651

00:42:03,000 --> 00:42:05,000

I mean, I tried pushing my head up against it.

652

00:42:05,000 --> 00:42:09,000

At the peak, I could not get it just like all over the place.

653

00:42:09,000 --> 00:42:11,000

Now I was holding it dead center.

654

00:42:11,000 --> 00:42:13,000

What?

655

00:42:13,000 --> 00:42:15,000

Jamie has even less control over the plywood.

656

00:42:15,000 --> 00:42:18,000

There's just no way you can steer this thing.

657

00:42:24,000 --> 00:42:31,000

Well, more than any other data we can come up with, Buster's a pretty clear indicator of how survivable a 60 foot fall actually is.

658

00:42:31,000 --> 00:42:33,000

But what was our actual data?

659

00:42:33,000 --> 00:42:38,000

Well, not surprisingly, the parachute was actually the best at about 28 miles per hour.

660

00:42:38,000 --> 00:42:41,000

Right behind it was the large umbrella at 29.

661

00:42:41,000 --> 00:42:45,000

What really surprised me was that the plywood was no use at all.

662

00:42:45,000 --> 00:42:49,000

In fact, it broke over Buster's back upon impact.

663

00:42:49,000 --> 00:42:52,000

And our rigs didn't do anything at all. Didn't help either.

664

00:42:52,000 --> 00:43:00,000

From a controllability standpoint and from a velocity pating the ground standpoint, this is one of those myths that just unequivocally busted.

665

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

Yeah, absolutely. Myth busted.

666

00:43:04,000 --> 00:43:08,000

The builds are finished and the bikes have been test footed.

667

00:43:08,000 --> 00:43:10,000

But which bike is the best?

668

00:43:10,000 --> 00:43:15,000

Coming up, a master fabricator is named on World Biker Build Off The Votes Are In.

669

00:43:15,000 --> 00:43:23,000

Be sure to check out the Biker Build Off fan site only on Discovery.com.

670

00:43:33,000 --> 00:43:36,000

[www.bikerbuildoff.com](http://www.bikerbuildoff.com)