

2020

Human Exploration

Rover Challenge

AWARDS



1
00:00:01,534 --> 00:00:08,141
[MUSIC]

2
00:00:08,141 --> 00:00:09,209
>> HELLO AND WELCOME

3
00:00:09,209 --> 00:00:10,710
TO THE NASA 2020 NASA

4
00:00:10,710 --> 00:00:11,978
HUMAN EXPLORATION

5
00:00:11,978 --> 00:00:13,146
ROVER CHALLENGE

6
00:00:13,146 --> 00:00:15,448
VIRTUAL AWARDS CEREMONY.

7
00:00:15,448 --> 00:00:16,683
MY NAME IS STEVE MILEY

8
00:00:16,683 --> 00:00:18,385
AND I'M THE ASSOCIATE DIRECTOR

9
00:00:18,385 --> 00:00:20,420
AT MARSHALL SPACE FLIGHT CENTER.

10
00:00:20,420 --> 00:00:22,021
AND ON BEHALF OF NASA'S

11
00:00:22,021 --> 00:00:23,990
OFFICE OF STEM ENGAGEMENT

12
00:00:23,990 --> 00:00:24,791
AND MARSHALL SPACE

13
00:00:24,791 --> 00:00:25,592

FLIGHT CENTER,

14

00:00:25,592 --> 00:00:27,193

I CONGRATULATE EVERY TEAM

15

00:00:27,193 --> 00:00:28,261

THAT PARTICIPATED IN

16

00:00:28,261 --> 00:00:29,763

THIS YEAR'S EVENT.

17

00:00:29,763 --> 00:00:30,597

THANK YOU ALL

18

00:00:30,597 --> 00:00:31,564

FOR YOUR ENTHUSIASM

19

00:00:31,564 --> 00:00:32,899

FOR THIS COMPETITION

20

00:00:32,899 --> 00:00:33,833

AND THE HARD WORK THAT

21

00:00:33,833 --> 00:00:35,668

YOUR ENTRIES REPRESENT.

22

00:00:35,668 --> 00:00:36,970

YOU ARE SUCH AN INSPIRATION

23

00:00:36,970 --> 00:00:38,838

TO US AT NASA.

24

00:00:38,838 --> 00:00:40,740

NASA IS PROUD TO BE A PART OF

25

00:00:40,740 --> 00:00:41,775

THE ROVER CHALLENGE

26

00:00:41,775 --> 00:00:42,976

BECAUSE WE WANT YOU TO BE

27

00:00:42,976 --> 00:00:44,844

EXCITED ABOUT POTENTIAL CAREERS

28

00:00:44,844 --> 00:00:46,613

IN SCIENCE, ENGINEERING,

29

00:00:46,613 --> 00:00:48,181

TECHNOLOGY AND MATH.

30

00:00:48,181 --> 00:00:49,816

THE STEM FIELDS.

31

00:00:49,816 --> 00:00:51,351

THIS COMPETITION IS ONE OF

32

00:00:51,351 --> 00:00:53,653

THE ARTEMIS STUDENT CHALLENGES

33

00:00:53,653 --> 00:00:55,021

WHICH ARE DESIGNED TO ATTRACT

34

00:00:55,021 --> 00:00:56,189

AND INSPIRE AMERICA'S

35

00:00:56,189 --> 00:00:57,991

NEXT GENERATION OF SCIENTISTS,

36

00:00:57,991 --> 00:00:59,893

ENGINEERS AND EXPLORERS

37

00:00:59,893 --> 00:01:01,428

WHILE ALSO ENGAGING THEM

38

00:01:01,428 --> 00:01:02,762

IN THE INNOVATIVE SCIENCE

39

00:01:02,762 --> 00:01:03,596

AND ENGINEERING

40

00:01:03,596 --> 00:01:04,697

CRITICAL TO NASA'S

41

00:01:04,697 --> 00:01:06,733

ARTEMIS PROGRAM.

42

00:01:06,733 --> 00:01:07,901

AND I WANT TO GIVE A BIG

43

00:01:07,901 --> 00:01:10,770

SHOUTOUT TO OUR OSTEM TEAM

44

00:01:10,770 --> 00:01:11,938

THAT MADE GREAT EFFORTS

45

00:01:11,938 --> 00:01:13,540

TO INNOVATE AND FIND WAYS

46

00:01:13,540 --> 00:01:14,741

TO PRESERVE AS MUCH OF THIS

47

00:01:14,741 --> 00:01:17,043

COMPETITION AS POSSIBLE

48

00:01:17,043 --> 00:01:18,545

IN THE FACE OF THESE

49

00:01:18,545 --> 00:01:21,448

UNPRECEDENTED CONDITIONS.

50

00:01:21,448 --> 00:01:22,649

WE ARE PROUD TO HAVE SUCH

51
00:01:22,649 --> 00:01:24,717
AN AGILE AND CREATIVE GROUP

52
00:01:24,717 --> 00:01:26,753
THAT HAS PRIORITIZED SAFETY

53
00:01:26,753 --> 00:01:28,154
AND STILL FOUND WAYS

54
00:01:28,154 --> 00:01:29,522
TO MAINTAIN THE SPIRIT

55
00:01:29,522 --> 00:01:31,090
OF THIS EVENT.

56
00:01:31,090 --> 00:01:32,792
THIS COMPETITION IS A TERRIFIC

57
00:01:32,792 --> 00:01:34,060
EXAMPLE OF HOW LEADERS

58
00:01:34,060 --> 00:01:35,762
IN GOVERNMENT, INDUSTRY,

59
00:01:35,762 --> 00:01:36,896
AND ACADEMIA

60
00:01:36,896 --> 00:01:38,364
CAN WORK WITH YOUNG PEOPLE

61
00:01:38,364 --> 00:01:40,133
TO FOSTER THEIR TALENTS

62
00:01:40,133 --> 00:01:41,568
AND SHOW HOW TEAMWORK

63
00:01:41,568 --> 00:01:43,770

CAN LEAD TO GREAT THINGS.

64

00:01:43,770 --> 00:01:44,437
AS YOU KNOW,

65

00:01:44,437 --> 00:01:45,839
THIS YEAR'S COMPETITION

66

00:01:45,839 --> 00:01:47,073
MET UNIQUE CHALLENGES

67

00:01:47,073 --> 00:01:47,974
THAT REQUIRED US

68

00:01:47,974 --> 00:01:49,242
TO FOCUS OUR EFFORTS

69

00:01:49,242 --> 00:01:51,044
IN A DIFFERENT WAY.

70

00:01:51,044 --> 00:01:51,811
AS PIONEERS

71

00:01:51,811 --> 00:01:53,446
OF SPACE EXPLORATION,

72

00:01:53,446 --> 00:01:54,981
NASA FACES CHALLENGES

73

00:01:54,981 --> 00:01:55,682
IN WHAT WE DO

74

00:01:55,682 --> 00:01:57,217
ON A REGULAR BASIS

75

00:01:57,217 --> 00:01:59,018
AND WE CHOOSE TO FIND SOLUTIONS

76

00:01:59,018 --> 00:02:00,753

TO THOSE CHALLENGES.

77

00:02:00,753 --> 00:02:01,321

AND THERE WERE

78

00:02:01,321 --> 00:02:02,956

SO MANY CHALLENGES BEYOND

79

00:02:02,956 --> 00:02:04,791

THE TYPICAL COMPETITION

80

00:02:04,791 --> 00:02:06,793

THAT YOU HAD TO OVERCOME.

81

00:02:06,793 --> 00:02:08,027

YOUR SKILLS WENT BEYOND

82

00:02:08,027 --> 00:02:09,562

THE COURSE THIS YEAR

83

00:02:09,562 --> 00:02:10,396

AND YOU DEMONSTRATED

84

00:02:10,396 --> 00:02:11,898

ALL THE ATTRIBUTES

85

00:02:11,898 --> 00:02:13,900

WE ARE LOOKING FOR AT NASA.

86

00:02:13,900 --> 00:02:16,269

AGILITY, PROBLEM SOLVING,

87

00:02:16,269 --> 00:02:18,071

CREATING UNIQUE SOLUTIONS,

88

00:02:18,071 --> 00:02:20,406

ENTHUSIASM AND AS ALWAYS,

89

00:02:20,406 --> 00:02:21,741

PUSHING THE LIMITS

90

00:02:21,741 --> 00:02:23,409

OF INNOVATION.

91

00:02:23,409 --> 00:02:24,544

ALL THOSE TRAITS

92

00:02:24,544 --> 00:02:25,845

ARE A GREAT FOUNDATION

93

00:02:25,845 --> 00:02:26,713

FOR YOUR FUTURE

94

00:02:26,713 --> 00:02:28,248

IN STEM FIELDS.

95

00:02:28,248 --> 00:02:31,518

SKILLS THAT WE NEED ACROSS NASA.

96

00:02:31,518 --> 00:02:33,119

FOR MORE THAN 25 YEARS,

97

00:02:33,119 --> 00:02:34,988

THE NASA HUMAN EXPLORATION

98

00:02:34,988 --> 00:02:36,322

ROVER CHALLENGE

99

00:02:36,322 --> 00:02:37,657

AND ITS SPONSORS

100

00:02:37,657 --> 00:02:39,158

HAVE ENCOURAGED STUDENT TEAMS

101
00:02:39,158 --> 00:02:40,260
FROM ACROSS THE WORLD

102
00:02:40,260 --> 00:02:42,195
TO OVERCOME OBSTACLES.

103
00:02:42,195 --> 00:02:43,663
AND THESE AWARDS RECOGNIZE

104
00:02:43,663 --> 00:02:44,898
THE HARD WORK EACH TEAM

105
00:02:44,898 --> 00:02:46,666
HAS ACCOMPLISHED IN DESIGNING

106
00:02:46,666 --> 00:02:47,400
AND BUILDING

107
00:02:47,400 --> 00:02:49,435
HUMAN POWERED ROVERS.

108
00:02:49,435 --> 00:02:51,070
HAVING TO DESIGN THESE ROVERS

109
00:02:51,070 --> 00:02:53,139
TO TRAVERSE A SIMULATED,

110
00:02:53,139 --> 00:02:54,941
EXOPLANETARY COURSE

111
00:02:54,941 --> 00:02:57,110
AND CONDUCT MISSION TASKS

112
00:02:57,110 --> 00:02:58,344
ALONG THE WAY

113
00:02:58,344 --> 00:02:59,746

WAS INTENDED TO SIMULATE

114

00:02:59,746 --> 00:03:01,047

SOME OF THE SKILLS

115

00:03:01,047 --> 00:03:03,616

WE ARE LOOKING FOR AT NASA.

116

00:03:03,616 --> 00:03:05,184

JUST AS NASA'S MISSIONS

117

00:03:05,184 --> 00:03:06,486

ADAPT TO MEET OUR

118

00:03:06,486 --> 00:03:07,820

EXPLORATION GOALS,

119

00:03:07,820 --> 00:03:09,455

THIS COMPETITION HAS CHANGED

120

00:03:09,455 --> 00:03:11,758

DRASTICALLY OVER THE YEARS.

121

00:03:11,758 --> 00:03:13,726

FROM THE ORIGINAL SIX TEAMS

122

00:03:13,726 --> 00:03:16,095

WHO RACED IN 1994,

123

00:03:16,095 --> 00:03:18,565

TO THE MORE THAN 100 TEAMS

124

00:03:18,565 --> 00:03:20,934

THAT PARTICIPATED LAST YEAR.

125

00:03:20,934 --> 00:03:21,868

ROVER CHALLENGE IS

126

00:03:21,868 --> 00:03:22,835

NO LONGER JUST

127

00:03:22,835 --> 00:03:24,571

A PHYSICAL CHALLENGE, THOUGH.

128

00:03:24,571 --> 00:03:26,039

WHEN THE MISSION TASKS

129

00:03:26,039 --> 00:03:28,808

ELEMENTS WERE ADDED IN 2018,

130

00:03:28,808 --> 00:03:30,743

IT TRANSFORMED FROM A RACE

131

00:03:30,743 --> 00:03:32,011

INTO A MISSION.

132

00:03:32,011 --> 00:03:33,313

WHERE TEAMS HAVE TO THINK

133

00:03:33,313 --> 00:03:34,714

STRATEGICALLY ABOUT WHAT

134

00:03:34,714 --> 00:03:37,250

OBSTACLES TO TAKE ON.

135

00:03:37,250 --> 00:03:38,651

THE SAME WAY OUR NASA TEAM

136

00:03:38,651 --> 00:03:40,086

FACES DESIGN REVIEWS

137

00:03:40,086 --> 00:03:41,454

FOR UPCOMING MISSIONS.

138

00:03:41,454 --> 00:03:42,388

YOU WERE FACED

139

00:03:42,388 --> 00:03:43,923

WITH THESE SAME CHALLENGES

140

00:03:43,923 --> 00:03:44,524

WHEN MAKING

141

00:03:44,524 --> 00:03:45,592

THE CRUCIAL DECISIONS

142

00:03:45,592 --> 00:03:47,994

IN BUILDING YOUR ROVERS.

143

00:03:47,994 --> 00:03:49,262

THE CHALLENGES YOU FACED

144

00:03:49,262 --> 00:03:50,263

WITH THIS COMPETITION

145

00:03:50,263 --> 00:03:51,230

GO BEYOND ANYTHING

146

00:03:51,230 --> 00:03:52,665

WE'VE SEEN BEFORE.

147

00:03:52,665 --> 00:03:54,233

EVERYTHING FROM THE DESIGNING

148

00:03:54,233 --> 00:03:56,502

THE WHEELS AND MISSION TOOLS

149

00:03:56,502 --> 00:03:58,271

TO THE STRATEGIC PLANNING

150

00:03:58,271 --> 00:04:00,740

OF MAXIMIZING POINTS OBTAINABLE

151
00:04:00,740 --> 00:04:02,075
WITHIN THE EIGHT MINUTES

152
00:04:02,075 --> 00:04:04,477
OF VIRTUAL OXYGEN.

153
00:04:04,477 --> 00:04:05,511
TO ALL THE STUDENTS

154
00:04:05,511 --> 00:04:06,846
WHO TOOK ON THIS TASK

155
00:04:06,846 --> 00:04:07,647
AND PARTICIPATED

156
00:04:07,647 --> 00:04:08,781
IN ROVER CHALLENGE,

157
00:04:08,781 --> 00:04:10,183
WE SALUTE YOU

158
00:04:10,183 --> 00:04:11,451
AND CONGRATULATE YOU

159
00:04:11,451 --> 00:04:13,119
ON YOUR ACCOMPLISHMENTS.

160
00:04:13,119 --> 00:04:14,687
YOU HAVE NO IDEA HOW EXCITED

161
00:04:14,687 --> 00:04:16,222
IT MAKES ME TO SEE THE PRIDE

162
00:04:16,222 --> 00:04:17,457
YOU TAKE IN YOUR WORK

163
00:04:17,457 --> 00:04:19,058

EVEN THOUGH THE COMPETITION GO--

164

00:04:19,058 --> 00:04:20,059

DIDN'T GO HOW

165

00:04:20,059 --> 00:04:21,961

MANY OF US EXPECTED.

166

00:04:21,961 --> 00:04:23,129

BELIEVE IT OR NOT,

167

00:04:23,129 --> 00:04:24,464

YOU ARE THE INSPIRATION

168

00:04:24,464 --> 00:04:26,065

FOR ME AND OTHERS AT NASA

169

00:04:26,065 --> 00:04:27,667

AS WE WORK TO PUT

170

00:04:27,667 --> 00:04:28,801

THE FIRST WOMAN

171

00:04:28,801 --> 00:04:29,769

AND THE NEXT MAN

172

00:04:29,769 --> 00:04:31,738

ON THE SURFACE OF THE MOON.

173

00:04:31,738 --> 00:04:32,538

I HOPE YOU TAKE WHAT

174

00:04:32,538 --> 00:04:33,840

YOU LEARNED FROM THIS EVENT

175

00:04:33,840 --> 00:04:34,941

AND USE IT IN WHATEVER

176
00:04:34,941 --> 00:04:37,010
THE FUTURE HOLDS FOR YOU.

177
00:04:37,010 --> 00:04:38,077
BASED ON WHAT I'VE SEEN

178
00:04:38,077 --> 00:04:39,312
FROM THESE AWARDS,

179
00:04:39,312 --> 00:04:41,047
IT WILL BE A BRIGHT FUTURE

180
00:04:41,047 --> 00:04:42,248
AND HOPEFULLY WE WILL

181
00:04:42,248 --> 00:04:44,150
SEE YOU AGAIN AS ENGINEERS

182
00:04:44,150 --> 00:04:45,585
AND SCIENTISTS WORKING

183
00:04:45,585 --> 00:04:47,120
IN THE AEROSPACE INDUSTRY

184
00:04:47,120 --> 00:04:49,522
OR MAYBE EVEN NASA.

185
00:04:49,522 --> 00:04:50,289
NO MATTER WHERE YOUR

186
00:04:50,289 --> 00:04:51,924
FUTURE LEAVES YOU,

187
00:04:51,924 --> 00:04:53,693
I ENCOURAGE EACH OF YOU

188
00:04:53,693 --> 00:04:54,961

NOT TO LOSE THE SENSE

189

00:04:54,961 --> 00:04:56,195
OF PURPOSE THAT LED YOU

190

00:04:56,195 --> 00:04:58,498
HERE TODAY, AND STAY INVOLVED

191

00:04:58,498 --> 00:05:00,066
IN THE STEM FIELDS.

192

00:05:00,066 --> 00:05:01,801
AFTERALL, YOU ARE

193

00:05:01,801 --> 00:05:03,603
THE SCIENTISTS, ENGINEERS,

194

00:05:03,603 --> 00:05:05,838
TECHNICIANS AND EXPLORERS

195

00:05:05,838 --> 00:05:06,606
WHO WILL CARRY ON

196

00:05:06,606 --> 00:05:08,041
THE MISSION OF EXPLORATION

197

00:05:08,041 --> 00:05:10,843
IN THE DECADES TO COME.

198

00:05:10,843 --> 00:05:11,678
IN CLOSING,

199

00:05:11,678 --> 00:05:13,346
I WANT TO GIVE A BIG THANKS

200

00:05:13,346 --> 00:05:14,480
TO THE MENTORS,

201
00:05:14,480 --> 00:05:16,049
THE FACULTY ADVISORS,

202
00:05:16,049 --> 00:05:17,617
AND TEACHERS WHO HELPED

203
00:05:17,617 --> 00:05:19,252
EACH OF THE TEAMS.

204
00:05:19,252 --> 00:05:20,420
YOU SHOULD ALL BE PROUD

205
00:05:20,420 --> 00:05:22,388
OF YOUR SUCCESSES THIS YEAR.

206
00:05:22,388 --> 00:05:24,791
IT DID NOT GO UNNOTICED.

207
00:05:24,791 --> 00:05:25,658
AND NOW,

208
00:05:25,658 --> 00:05:28,561
IT'S TIME FOR THE AWARDS.

209
00:05:34,734 --> 00:05:35,635
>> HELLO, MY NAME

210
00:05:35,635 --> 00:05:36,602
IS DARIAN LESLIE,

211
00:05:36,602 --> 00:05:38,071
AND I AM AN INTERN

212
00:05:38,071 --> 00:05:39,572
AND I AM HONORED TO PRESENT

213
00:05:39,572 --> 00:05:40,940

THE SYSTEM SAFETY AWARD

214

00:05:40,940 --> 00:05:41,674

ON THE BEHALF OF

215

00:05:41,674 --> 00:05:43,342

THE INTERNATIONAL SYSTEM SAFETY

216

00:05:43,342 --> 00:05:45,344

SOCIETY WHO ARE PROFESSIONALS

217

00:05:45,344 --> 00:05:46,612

DEDICATED TO THE SAFETY

218

00:05:46,612 --> 00:05:48,448

OF SYSTEMS, PRODUCTS

219

00:05:48,448 --> 00:05:49,816

AND SERVICES.

220

00:05:49,816 --> 00:05:51,217

THIS AWARD RECOGNIZES A TEAM

221

00:05:51,217 --> 00:05:52,018

IN EACH DIVISION

222

00:05:52,018 --> 00:05:53,586

THAT BEST EXEMPLIFIES

223

00:05:53,586 --> 00:05:55,822

SYSTEM SAFETY PRACTICES.

224

00:05:55,822 --> 00:05:57,056

THIS INCLUDES THE APPLICATION

225

00:05:57,056 --> 00:05:57,990

OF ENGINEERING,

226
00:05:57,990 --> 00:05:59,192
MANAGEMENT PRINCIPLES,

227
00:05:59,192 --> 00:06:01,227
CRITERIA AND TECHNIQUES

228
00:06:01,227 --> 00:06:03,796
INTENDED TO OPTIMIZE THE SAFETY.

229
00:06:03,796 --> 00:06:04,964
THIS YEAR'S WINNING TEAM

230
00:06:04,964 --> 00:06:06,399
DEMONSTRATED THAT SAFETY NEEDS

231
00:06:06,399 --> 00:06:07,800
TO BE APART OF THE DESIGN

232
00:06:07,800 --> 00:06:08,668
RATHER THAN NEEDED

233
00:06:08,668 --> 00:06:09,802
AS AN AFTERTHOUGHT.

234
00:06:09,802 --> 00:06:11,104
FOCUSED ON IMPORTANT ACTIVITIES

235
00:06:11,104 --> 00:06:13,239
SUCH AS HAZARD ANALYSIS.

236
00:06:13,239 --> 00:06:14,540
WITH THIS ANALYSIS,

237
00:06:14,540 --> 00:06:16,008
IT IDENTIFIED AND CHARACTERIZED

238
00:06:16,008 --> 00:06:17,343

THE HAZARD POSED BY

239

00:06:17,343 --> 00:06:19,579

THE SYSTEM OR ITS OPERATION.

240

00:06:19,579 --> 00:06:20,813

THIS YEAR'S WINNING TEAM

241

00:06:20,813 --> 00:06:22,281

DID A HAZARD ANALYSIS

242

00:06:22,281 --> 00:06:23,816

OF NOT ONLY THE PARTS

243

00:06:23,816 --> 00:06:25,251

THAT COULD BE IMPROVED

244

00:06:25,251 --> 00:06:26,652

ON THEIR ROVER FOR SAFETY,

245

00:06:26,652 --> 00:06:28,187

BUT DELVED INTO

246

00:06:28,187 --> 00:06:30,089

THE ERGONOMICS OF THE SEATS

247

00:06:30,089 --> 00:06:31,057

AND PEDALS TO MAKE

248

00:06:31,057 --> 00:06:32,959

THE MOST EFFICIENT RIDE

249

00:06:32,959 --> 00:06:35,328

FOR THEIR DRIVERS.

250

00:06:35,328 --> 00:06:36,996

BY DEFYING THE CHALLENGES

251
00:06:36,996 --> 00:06:38,030
SUMMARIZED IN THE RISK,

252
00:06:38,030 --> 00:06:39,398
THE WINNING TEAM WORKED

253
00:06:39,398 --> 00:06:40,633
TO MAKE SIGNIFICANT

254
00:06:40,633 --> 00:06:41,701
ENHANCEMENTS TO THEIR ROVER

255
00:06:41,701 --> 00:06:42,902
FOR AN OVERALL SAFE

256
00:06:42,902 --> 00:06:45,037
AND COMFORTABLE EXPERIENCE.

257
00:06:45,037 --> 00:06:45,705
THE WINNER OF

258
00:06:45,705 --> 00:06:47,039
THE SYSTEM SAFETY AWARD IN

259
00:06:47,039 --> 00:06:49,275
THE HIGH SCHOOL DIVISION IS

260
00:06:49,275 --> 00:06:50,576
MT. JULIET HIGH SCHOOL

261
00:06:50,576 --> 00:06:52,378
FROM MT. JULIET, TENNESSEE.

262
00:06:52,378 --> 00:06:53,346
AND THE WINNERS

263
00:06:53,346 --> 00:06:54,981

OF THE SYSTEM SAFETY AWARD

264

00:06:54,981 --> 00:06:55,815
IN THE COLLEGE

265

00:06:55,815 --> 00:06:57,917
AND UNIVERSITY DIVISION IS

266

00:06:57,917 --> 00:07:00,353
INSTITUTO TECNOLOGICO

267

00:07:00,353 --> 00:07:01,988
DE SANTO DOMINGO

268

00:07:01,988 --> 00:07:04,991
FROM [INDISTINCT],

269

00:07:04,991 --> 00:07:06,125
DOMINICAN REPUBLIC.

270

00:07:06,125 --> 00:07:08,661
CONGRATULATIONS.

271

00:07:08,661 --> 00:07:09,796
>> HELLO, MY NAME

272

00:07:09,796 --> 00:07:11,430
IS KRISTEN MARQUEZ

273

00:07:11,430 --> 00:07:12,732
AND I AM THE PRODUCTION,

274

00:07:12,732 --> 00:07:14,500
TEST AND LAUNCH ENGINEERING

275

00:07:14,500 --> 00:07:16,002
DIRECTOR FOR BOEING.

276
00:07:16,002 --> 00:07:17,703
AND I AM EXCITED TO PRESENT

277
00:07:17,703 --> 00:07:19,038
THIS YEAR'S TECHNOLOGY

278
00:07:19,038 --> 00:07:21,374
CHALLENGE AWARD.

279
00:07:21,374 --> 00:07:22,742
THE GOAL OF THE TECHNOLOGY

280
00:07:22,742 --> 00:07:23,876
CHALLENGE AWARD

281
00:07:23,876 --> 00:07:26,045
IS TO INVOLVE STUDENTS

282
00:07:26,045 --> 00:07:27,747
WITH HANDS-ON ENGINEERING

283
00:07:27,747 --> 00:07:29,515
EXPERIENCES RELATED

284
00:07:29,515 --> 00:07:30,917
TO NASA'S MISSION

285
00:07:30,917 --> 00:07:32,151
OF EXPLORATION

286
00:07:32,151 --> 00:07:33,986
AND DISCOVERY.

287
00:07:33,986 --> 00:07:35,488
MOBILITY DEVICES,

288
00:07:35,488 --> 00:07:36,889

SUCH AS ROVERS,

289

00:07:36,889 --> 00:07:38,524

SIMULATE THE EXTENSION

290

00:07:38,524 --> 00:07:40,293

TO ASTRONAUT'S RANGE

291

00:07:40,293 --> 00:07:41,994

AND CARRYING CAPABILITIES

292

00:07:41,994 --> 00:07:44,897

AS THEY EXPLORE OTHER WORLDS.

293

00:07:44,897 --> 00:07:47,133

THE AWARD IS GIVEN TO THE TEAM

294

00:07:47,133 --> 00:07:48,434

THAT BEST ADDRESSED

295

00:07:48,434 --> 00:07:49,735

THIS YEAR'S TECHNOLOGY

296

00:07:49,735 --> 00:07:51,571

CHALLENGE OF FIELD DESIGN

297

00:07:51,571 --> 00:07:53,506

AND FABRICATION.

298

00:07:53,506 --> 00:07:55,775

THE WINNER OF THIS YEAR'S AWARD

299

00:07:55,775 --> 00:07:57,577

HAD A VERY UNIQUE DESIGN

300

00:07:57,577 --> 00:08:00,146

THAT FOCUSED ON MANEUVERABILITY

301
00:08:00,146 --> 00:08:02,915
AND THE SUSPENSION SYSTEM.

302
00:08:02,915 --> 00:08:04,717
UTILIZING A FIN

303
00:08:04,717 --> 00:08:05,585
SYSTEM MECHANISM

304
00:08:05,585 --> 00:08:06,452
AROUND THE INNER

305
00:08:06,452 --> 00:08:08,554
AND OUTER EDGES OF THE WHEEL,

306
00:08:08,554 --> 00:08:10,990
THIS TEAM DEMONSTRATED A DESIGN

307
00:08:10,990 --> 00:08:12,525
THAT COULD OPERATE OVER SEVERAL

308
00:08:12,525 --> 00:08:15,127
TYPES OF SIMULATED SURFACES

309
00:08:15,127 --> 00:08:16,295
WHILE INCREASING

310
00:08:16,295 --> 00:08:17,496
THE CONTACT SECTION

311
00:08:17,496 --> 00:08:18,798
OF THE WHEEL.

312
00:08:18,798 --> 00:08:20,299
THE TEAM SHOULD BE APPLAUDED

313
00:08:20,299 --> 00:08:22,001

FOR THEIR DESIGN AND FOCUS

314

00:08:22,001 --> 00:08:23,703

ON SPECIFIC CRITERIA

315

00:08:23,703 --> 00:08:26,305

INCLUDING SAFETY, DURABILITY,

316

00:08:26,305 --> 00:08:29,742

STABILITY AND MANEUVERABILITY.

317

00:08:29,742 --> 00:08:31,143

THIS YEAR'S WINNER

318

00:08:31,143 --> 00:08:32,111

OF THE TECHNOLOGY

319

00:08:32,111 --> 00:08:34,914

CHALLENGE AWARD IS

320

00:08:34,914 --> 00:08:37,550

UNIVERSIDAD NACIONAL

321

00:08:37,550 --> 00:08:39,018

DE INGENIERIA

322

00:08:39,018 --> 00:08:41,320

FROM LIMA, PERU.

323

00:08:41,320 --> 00:08:44,190

CONGRATULATIONS.

324

00:08:44,190 --> 00:08:45,091

>> HELLO, MY NAME

325

00:08:45,091 --> 00:08:46,559

IS LOUIS RAMIREZ.

326

00:08:46,559 --> 00:08:47,693

I'M THE EXECUTIVE DIRECTOR

327

00:08:47,693 --> 00:08:48,895

AND CEO OF THE U.S.

328

00:08:48,895 --> 00:08:50,263

SPACE AND ROCKET CENTER.

329

00:08:50,263 --> 00:08:51,697

AND I AM HAPPY TO PRESENT

330

00:08:51,697 --> 00:08:54,267

THIS YEAR'S DRIVETRAIN AWARD.

331

00:08:54,267 --> 00:08:55,034

OVER TIME,

332

00:08:55,034 --> 00:08:55,735

WE ANTICIPATE THAT

333

00:08:55,735 --> 00:08:56,469

THE DRIVETRAIN ON

334

00:08:56,469 --> 00:08:57,937

EXPLORATION ROVERS

335

00:08:57,937 --> 00:08:59,605

WILL CONSIST OF RELIABLE SYSTEMS

336

00:08:59,605 --> 00:09:02,241

SUCH AS BELTS, DRIVE SHAFTS

337

00:09:02,241 --> 00:09:03,376

OR DIRECT DRIVES

338

00:09:03,376 --> 00:09:04,911

THAT REPLACE CHAINS

339

00:09:04,911 --> 00:09:07,079

WHICH ARE COMMONLY EMPLOYED.

340

00:09:07,079 --> 00:09:08,981

THE GOAL OF THE CHALLENGE

341

00:09:08,981 --> 00:09:10,750

IS TO RECOGNIZE THE BEST

342

00:09:10,750 --> 00:09:12,785

OVERALL PERFORMING HIGH SCHOOL

343

00:09:12,785 --> 00:09:14,220

OR COLLEGE TEAM

344

00:09:14,220 --> 00:09:15,454

THAT DEMONSTRATES

345

00:09:15,454 --> 00:09:17,690

A RELIABLE DRIVETRAIN SYSTEM

346

00:09:17,690 --> 00:09:20,092

THAT ILLUMINATES CHAINS.

347

00:09:20,092 --> 00:09:21,060

THIS YEAR'S WINNER

348

00:09:21,060 --> 00:09:22,395

OF THE DRIVETRAIN AWARD

349

00:09:22,395 --> 00:09:24,664

UTILIZED LIGHTWEIGHT MATERIALS

350

00:09:24,664 --> 00:09:26,198

WITH A HIGH DEGREE OF STRENGTH

351
00:09:26,198 --> 00:09:27,533
AND RESISTANCE

352
00:09:27,533 --> 00:09:28,801
OF THE TRACTION ELEMENTS

353
00:09:28,801 --> 00:09:30,803
THAT BENDING AND TWISTING

354
00:09:30,803 --> 00:09:31,904
DUE TO THE ACTIONS

355
00:09:31,904 --> 00:09:32,705
OF THE EXTERNAL FORCES

356
00:09:32,705 --> 00:09:34,674
ACTING ON IT.

357
00:09:34,674 --> 00:09:35,441
THEY ALSO ENSURE

358
00:09:35,441 --> 00:09:37,143
THAT THE DIFFERENTIAL

359
00:09:37,143 --> 00:09:38,244
ALLOWED THE WHEELS TO TURN

360
00:09:38,244 --> 00:09:39,712
AT DIFFERENT RPM'S

361
00:09:39,712 --> 00:09:41,447
WHILE RECEIVING POWER

362
00:09:41,447 --> 00:09:42,481
AND WAS ABLE TO HANDLE

363
00:09:42,481 --> 00:09:43,883

QUICK MOVEMENTS TO THE RIGHT

364

00:09:43,883 --> 00:09:44,750

AND LEFT USING

365

00:09:44,750 --> 00:09:46,585

A SPIDER GEAR.

366

00:09:46,585 --> 00:09:47,787

THIS TEAM SHOULD BE COMMENDED

367

00:09:47,787 --> 00:09:49,188

FOR THEIR CREATIVITY

368

00:09:49,188 --> 00:09:50,022

AND INNOVATION

369

00:09:50,022 --> 00:09:52,258

OF THEIR DRIVETRAIN.

370

00:09:52,258 --> 00:09:53,726

THE TEAM WHICH BEST ADDRESSED

371

00:09:53,726 --> 00:09:55,328

THIS YEAR'S DRIVETRAIN

372

00:09:55,328 --> 00:09:58,564

TECHNOLOGY CHALLENGE WAS

373

00:09:58,564 --> 00:10:01,467

THE UNIVERSIDAD ECCI,

374

00:10:01,467 --> 00:10:03,369

BOGOTA, COLOMBIA.

375

00:10:03,369 --> 00:10:06,005

CONGRATULATIONS.

376

00:10:06,005 --> 00:10:07,273

>> HELLO, MY NAME

377

00:10:07,273 --> 00:10:08,674

IS RAGINI ACHARYA

378

00:10:08,674 --> 00:10:10,710

AND I AM THE STEM DIRECTOR

379

00:10:10,710 --> 00:10:12,244

FOR AMERICAN INSTITUTE

380

00:10:12,244 --> 00:10:14,780

OF AERONAUTICS AND ASTRONAUTICS,

381

00:10:14,780 --> 00:10:16,549

GREATER HUTSVILLE SECTION.

382

00:10:16,549 --> 00:10:18,718

I AM HERE TO PRESENT AIAA

383

00:10:18,718 --> 00:10:22,088

BEST REPORT AWARD.

384

00:10:22,088 --> 00:10:24,023

AMERICAN INSTITUTE OF

385

00:10:24,023 --> 00:10:25,758

AERONAUTICS AND ASTRONAUTICS,

386

00:10:25,758 --> 00:10:28,094

AIAA, IS WORLD'S LARGEST

387

00:10:28,094 --> 00:10:29,395

PROFESSIONAL SOCIETY

388

00:10:29,395 --> 00:10:31,364

OF AEROSPACE PROFESSIONALS.

389

00:10:31,364 --> 00:10:32,798

WITH NEARLY 30,000

390

00:10:32,798 --> 00:10:33,766

INDIVIDUAL MEMBERS

391

00:10:33,766 --> 00:10:35,668

FROM 85 COUNTRIES

392

00:10:35,668 --> 00:10:38,371

AND 95 CORPORATE MEMBERS.

393

00:10:38,371 --> 00:10:41,073

IT BEGAN NEARLY 80 YEARS AGO

394

00:10:41,073 --> 00:10:42,308

AS A GROUP OF SCIENCE FICTION

395

00:10:42,308 --> 00:10:43,542

WRITERS WHO WERE DREAMING

396

00:10:43,542 --> 00:10:46,245

OF SPACEFLIGHT IN THE 1930'S.

397

00:10:46,245 --> 00:10:47,346

SINCE THEN,

398

00:10:47,346 --> 00:10:49,482

IT HAS BECOME AN INTEGRAL PART

399

00:10:49,482 --> 00:10:51,050

OF THE AEROSPACE AND DEFENSE

400

00:10:51,050 --> 00:10:53,853

COMMUNITIES WORLDWIDE.

401
00:10:53,853 --> 00:10:56,022
THE AIAA BEST REPORT AWARD

402
00:10:56,022 --> 00:10:57,423
RECOGNIZES THE BEST

403
00:10:57,423 --> 00:10:58,991
OVERALL REPORT THAT

404
00:10:58,991 --> 00:11:00,860
INCLUDES AN EXPLANATION

405
00:11:00,860 --> 00:11:02,061
OF THE PROBLEM THAT

406
00:11:02,061 --> 00:11:03,863
THE TEAM WAS TRYING TO SOLVE.

407
00:11:03,863 --> 00:11:05,097
THEIR SCHEDULE,

408
00:11:05,097 --> 00:11:06,699
THEIR DEVELOPMENT PROCESS,

409
00:11:06,699 --> 00:11:07,800
TECHNICAL CHALLENGES

410
00:11:07,800 --> 00:11:09,068
THAT THEY FACED,

411
00:11:09,068 --> 00:11:10,903
CONSTRUCTION, TESTS,

412
00:11:10,903 --> 00:11:13,072
BUDGET, CONCLUSION, TEAM BIOS,

413
00:11:13,072 --> 00:11:15,241

AND THEIR ASSIGNED TASKS.

414

00:11:15,241 --> 00:11:16,275

THE WINNING TEAMS

415

00:11:16,275 --> 00:11:17,576

ADDRESSED ALL ASPECTS

416

00:11:17,576 --> 00:11:18,944

OF THE ENTIRE PLAN

417

00:11:18,944 --> 00:11:20,846

FROM START TO FINISH.

418

00:11:20,846 --> 00:11:22,515

THEY EXPLAINED THEIR SCHEDULE

419

00:11:22,515 --> 00:11:24,817

AND IDENTIFIED ANY MAJOR DELAYS

420

00:11:24,817 --> 00:11:27,586

AND SETBACKS THAT THEY FACED.

421

00:11:27,586 --> 00:11:29,422

COST COMPARISONS WERE ADDRESSED

422

00:11:29,422 --> 00:11:31,190

FROM PROJECTIONS TO FINAL COSTS

423

00:11:31,190 --> 00:11:33,359

AT THE END OF THE PROJECT.

424

00:11:33,359 --> 00:11:34,794

COMMUNICATING THEIR PROCESS

425

00:11:34,794 --> 00:11:36,162

GAVE US A LOOK AT HOW

426

00:11:36,162 --> 00:11:37,963

THE TEAM'S INVOLVEMENT

427

00:11:37,963 --> 00:11:39,498

DURING THE YEAR

428

00:11:39,498 --> 00:11:41,901

EVOLVED BY THE CONTRIBUTIONS

429

00:11:41,901 --> 00:11:44,170

OF EACH MEMBER'S [INDISTINCT]

430

00:11:44,170 --> 00:11:45,337

PRESENTING THE BEST REWARD

431

00:11:45,337 --> 00:11:46,238

THOUGH THE MOST

432

00:11:46,238 --> 00:11:47,673

ECONOMICAL MEANS.

433

00:11:47,673 --> 00:11:49,341

THIS YEAR'S WINNING TEAMS

434

00:11:49,341 --> 00:11:50,843

HAVE DEMONSTRATED THEIR

435

00:11:50,843 --> 00:11:52,344

KNOWLEDGE OF THE PROCESS

436

00:11:52,344 --> 00:11:53,279

AND REQUIREMENTS

437

00:11:53,279 --> 00:11:55,014

IN FORM OF THIS REPORT,

438

00:11:55,014 --> 00:11:56,348

CONVEYED TO THEIR LEADER

439

00:11:56,348 --> 00:11:57,583

THE ENTIRE SCHOOL,

440

00:11:57,583 --> 00:11:58,517

OF THEIR ROVER

441

00:11:58,517 --> 00:12:00,219

CHALLENGE PROJECT.

442

00:12:00,219 --> 00:12:01,921

THESE TEAMS DISCUSSED

443

00:12:01,921 --> 00:12:03,456

NOT ONLY THE PROCEDURES

444

00:12:03,456 --> 00:12:05,391

THAT LED TO THE FINAL PRODUCT,

445

00:12:05,391 --> 00:12:06,459

BUT ALSO EXPLAINED

446

00:12:06,459 --> 00:12:07,560

HOW THEY RAN THROUGH

447

00:12:07,560 --> 00:12:09,161

THE ASSUMPTIONS AND CONSTRAINTS

448

00:12:09,161 --> 00:12:10,629

IN-- DURING THE DEVELOPMENT

449

00:12:10,629 --> 00:12:12,098

OF THESE CONCEPTS--

450

00:12:12,098 --> 00:12:13,566

A VERY IMPORTANT POINT,

451
00:12:13,566 --> 00:12:14,834
PART OF THE DESIGN

452
00:12:14,834 --> 00:12:17,036
AND DEVELOPMENT PROCESS.

453
00:12:17,036 --> 00:12:17,837
THE WINNING TEAMS

454
00:12:17,837 --> 00:12:19,105
INCLUDED THE TRIALS

455
00:12:19,105 --> 00:12:20,139
AND COURSE CORRECTIONS

456
00:12:20,139 --> 00:12:21,440
THAT TOOK PLACE

457
00:12:21,440 --> 00:12:23,809
DURING SUCH AN UNDERTAKING.

458
00:12:23,809 --> 00:12:25,511
THE WINNER OF THIS YEAR'S

459
00:12:25,511 --> 00:12:27,947
AIAA BEST REPORT AWARD

460
00:12:27,947 --> 00:12:30,015
IN THE HIGH SCHOOL DIVISION

461
00:12:30,015 --> 00:12:32,785
IS PARISH EPISCOPAL SCHOOL

462
00:12:32,785 --> 00:12:36,455
IN DALLAS, TEXAS,

463
00:12:36,455 --> 00:12:37,957

AND THE WINNER OF THIS YEAR'S

464

00:12:37,957 --> 00:12:40,226

AIW BEST REPORT AWARD

465

00:12:40,226 --> 00:12:41,994

IN THE UNIVERSITY

466

00:12:41,994 --> 00:12:43,429

OR COLLEGE DIVISION

467

00:12:43,429 --> 00:12:45,297

IS TRINE UNIVERSITY

468

00:12:45,297 --> 00:12:46,599

FROM ANGOLA.

469

00:12:46,599 --> 00:12:48,501

CONGRATULATIONS TO BOTH TEAMS.

470

00:12:48,501 --> 00:12:50,369

>> MY NAME IS NISHANT GOLI,

471

00:12:50,369 --> 00:12:51,337

AND I AM THE CHAIR

472

00:12:51,337 --> 00:12:52,771

OF THE AIAA

473

00:12:52,771 --> 00:12:54,573

GREATER HUNTSVILLE SECTION.

474

00:12:54,573 --> 00:12:56,475

AND NOW I'M EXCITED TO PRESENT

475

00:12:56,475 --> 00:12:58,010

THIS YEAR'S AIAA TELEMETRY

476
00:12:58,010 --> 00:13:00,179
AND ELECTRONICS AWARD.

477
00:13:00,179 --> 00:13:01,247
THIS AWARD RECOGNIZES

478
00:13:01,247 --> 00:13:02,448
THE TEAM THAT DEVELOPS

479
00:13:02,448 --> 00:13:03,916
THE MOST INNOVATIVE AND USEFUL

480
00:13:03,916 --> 00:13:06,285
REAL-TIME TELEMETRY SYSTEMS

481
00:13:06,285 --> 00:13:07,153
FOR THE OPERATION

482
00:13:07,153 --> 00:13:08,187
AS DEMONSTRATED THROUGH

483
00:13:08,187 --> 00:13:09,722
REPORT SUBMISSION.

484
00:13:09,722 --> 00:13:10,756
THIS YEAR'S WINNING TEAM

485
00:13:10,756 --> 00:13:12,591
DEMONSTRATED EFFICIENCY

486
00:13:12,591 --> 00:13:14,326
OF THE TELEMETRIC SYSTEM

487
00:13:14,326 --> 00:13:15,094
BY JUSTIFYING

488
00:13:15,094 --> 00:13:16,462

THE DESIGN CHOICE MADE

489

00:13:16,462 --> 00:13:18,030
RELATIVE TO ITS WEIGHT,

490

00:13:18,030 --> 00:13:19,431
USEFULNESS TO THE CREW,

491

00:13:19,431 --> 00:13:20,099
AND PROVIDED

492

00:13:20,099 --> 00:13:21,267
THE TECHNICAL DETAILS THAT

493

00:13:21,267 --> 00:13:23,169
DEMONSTRATE THE [INDISTINCT]

494

00:13:23,169 --> 00:13:24,470
TO BROADCAST AND RECEIVE

495

00:13:24,470 --> 00:13:25,905
REAL-TIME DATA

496

00:13:25,905 --> 00:13:26,872
TO THE CENTRAL STATION

497

00:13:26,872 --> 00:13:28,474
HERE IN [INDISTINCT]

498

00:13:28,474 --> 00:13:29,375
THIS YEAR'S WINNER

499

00:13:29,375 --> 00:13:30,809
OF THE AIAA TELEMETRY

500

00:13:30,809 --> 00:13:32,178
AND ELECTRONIC AWARD

501
00:13:32,178 --> 00:13:34,113
GOES TO TECNOLOGICO DE MORELIA

502
00:13:34,113 --> 00:13:36,115
FROM MORELIA, MEXICO.

503
00:13:36,115 --> 00:13:38,551
THANK YOU, ALL THE BEST.

504
00:13:38,551 --> 00:13:39,618
>> HELLO, MY NAME

505
00:13:39,618 --> 00:13:40,886
IS AMY MCDOWELL,

506
00:13:40,886 --> 00:13:42,788
AND I AM AN EDUCATION SPECIALIST

507
00:13:42,788 --> 00:13:44,123
SUPPORTING THE NASA HUMAN

508
00:13:44,123 --> 00:13:46,325
EXPLORATION ROVER CHALLENGE,

509
00:13:46,325 --> 00:13:47,693
AND I'M EXCITED TO PRESENT

510
00:13:47,693 --> 00:13:51,063
THIS YEAR'S BEST DESIGN AWARD.

511
00:13:51,063 --> 00:13:51,997
THE NEIL ARMSTRONG

512
00:13:51,997 --> 00:13:53,933
BEST DESIGN AWARD IS GIVEN

513
00:13:53,933 --> 00:13:56,068

TO THE TEAM IN EACH DIVISION

514

00:13:56,068 --> 00:13:57,903

WHOSE ROVER DESIGN REPRESENTS

515

00:13:57,903 --> 00:13:59,872

THE BEST TECHNICAL APPROACH

516

00:13:59,872 --> 00:14:00,739

TOWARDS SOLVING

517

00:14:00,739 --> 00:14:02,174

THE ENGINEERING PROBLEM

518

00:14:02,174 --> 00:14:03,075

OF NAVIGATING

519

00:14:03,075 --> 00:14:05,945

THE EXTRATERRESTRIAL TERRAIN.

520

00:14:05,945 --> 00:14:06,979

THE AWARD IS BASED

521

00:14:06,979 --> 00:14:07,947

ON THE WINNING TEAM'S

522

00:14:07,947 --> 00:14:09,148

TECHNICAL APPROACH

523

00:14:09,148 --> 00:14:10,316

TO THEIR DESIGNS,

524

00:14:10,316 --> 00:14:12,751

NOT ON THEIR ROVER PERFORMANCE.

525

00:14:12,751 --> 00:14:14,119

THIS YEAR'S WINNING TEAMS

526
00:14:14,119 --> 00:14:16,388
ESTABLISHED A PROJECT LIFECYCLE

527
00:14:16,388 --> 00:14:17,189
THAT DEMONSTRATED

528
00:14:17,189 --> 00:14:18,791
THE ENTIRE PROCESS

529
00:14:18,791 --> 00:14:20,993
FROM START TO FINISH.

530
00:14:20,993 --> 00:14:22,027
THEY ALSO TOOK

531
00:14:22,027 --> 00:14:23,195
INTO CONSIDERATION

532
00:14:23,195 --> 00:14:23,862
THE POTENTIAL

533
00:14:23,862 --> 00:14:25,631
LIKELIHOOD OF FAILURE

534
00:14:25,631 --> 00:14:27,466
AND THE APPROACHES TO OVERCOME

535
00:14:27,466 --> 00:14:29,835
THOSE PERCEIVED ISSUES.

536
00:14:29,835 --> 00:14:31,737
THE WINNER OF THE NEIL ARMSTRONG

537
00:14:31,737 --> 00:14:33,138
BEST DESIGN AWARD

538
00:14:33,138 --> 00:14:34,273

IN THE HIGH SCHOOL DIVISION

539

00:14:34,273 --> 00:14:37,109
IS ESCAMBIA HIGH SCHOOL

540

00:14:37,109 --> 00:14:40,079
FROM PENSACOLA, FLORIDA.

541

00:14:40,079 --> 00:14:41,146
THIS YEAR'S WINNER

542

00:14:41,146 --> 00:14:42,147
OF THE NEIL ARMSTRONG

543

00:14:42,147 --> 00:14:43,349
BEST DESIGN AWARD

544

00:14:43,349 --> 00:14:44,016
IN THE COLLEGE

545

00:14:44,016 --> 00:14:45,184
AND UNIVERSITY DIVISION

546

00:14:45,184 --> 00:14:47,519
IS MIDDLE TENNESSEE

547

00:14:47,519 --> 00:14:49,154
STATE UNIVERSITY

548

00:14:49,154 --> 00:14:51,557
FROM MURFREESBORO, TENNESSEE.

549

00:14:51,557 --> 00:14:54,727
CONGRATULATIONS.

550

00:14:54,727 --> 00:14:55,794
>> HELLO.

551
00:14:55,794 --> 00:14:56,829
MY NAME IS JOHNNY STEVENSON,

552
00:14:56,829 --> 00:14:57,696
AND I'M THE DIRECTOR

553
00:14:57,696 --> 00:14:58,664
FOR THE OFFICE OF STRATEGIC

554
00:14:58,664 --> 00:15:00,399
ANALYSIS AND COMMUNICATIONS

555
00:15:00,399 --> 00:15:01,467
AT NASA'S MARSHALL

556
00:15:01,467 --> 00:15:02,568
SPACEFLIGHT CENTER.

557
00:15:02,568 --> 00:15:03,636
I'M HONORED TO PRESENT

558
00:15:03,636 --> 00:15:05,104
THIS YEAR'S NEW TASK

559
00:15:05,104 --> 00:15:06,272
CHALLENGE AWARD.

560
00:15:06,272 --> 00:15:07,339
TASK CHALLENGE AWARD

561
00:15:07,339 --> 00:15:08,407
IS AWARDED TO THE TEAM

562
00:15:08,407 --> 00:15:09,541
IN EACH DIVISION

563
00:15:09,541 --> 00:15:10,676

WHO BEST DEMONSTRATES

564

00:15:10,676 --> 00:15:13,145

A 3D-PRINTED TOOL DESIGN

565

00:15:13,145 --> 00:15:14,113

FOR THE LIQUID SAMPLE

566

00:15:14,113 --> 00:15:15,481

RETRIEVAL TASK.

567

00:15:15,481 --> 00:15:16,715

3D MANUFACTURING CREATES

568

00:15:16,715 --> 00:15:17,616

AN INEXPENSIVE WAY

569

00:15:17,616 --> 00:15:20,019

TO MANUFACTURE PARTS ONSITE,

570

00:15:20,019 --> 00:15:20,953

AND CERTAINLY CUTS DOWN

571

00:15:20,953 --> 00:15:22,354

ON TRANSIT TIME AND WAIT TIME

572

00:15:22,354 --> 00:15:24,023

BETWEEN LOCATIONS.

573

00:15:24,023 --> 00:15:25,124

UH, THIS IS SOME TECHNOLOGY

574

00:15:25,124 --> 00:15:26,091

THAT WE WILL USE

575

00:15:26,091 --> 00:15:26,925

WHETHER IT'S ON THE MOON

576
00:15:26,925 --> 00:15:28,527
OR ON MARS, UH,

577
00:15:28,527 --> 00:15:30,262
SO THANK YOU FOR CONTRIBUTING,

578
00:15:30,262 --> 00:15:31,497
AND WE'RE GONNA AWARD

579
00:15:31,497 --> 00:15:32,865
THE WINNERS NOW.

580
00:15:32,865 --> 00:15:33,432
THE WINNER IN

581
00:15:33,432 --> 00:15:35,034
THE HIGH SCHOOL DIVISION.

582
00:15:35,034 --> 00:15:35,834
THE TASK CHALLENGE,

583
00:15:35,834 --> 00:15:36,702
THEY HAD A UNIQUE DESIGN

584
00:15:36,702 --> 00:15:37,369
THAT CONSISTED

585
00:15:37,369 --> 00:15:38,671
OF THREE SYRINGES

586
00:15:38,671 --> 00:15:40,506
SECURED TO THE END OF A PIPE

587
00:15:40,506 --> 00:15:42,308
BY 3D-PRINTED MOUNT,

588
00:15:42,308 --> 00:15:43,742

A ONE-WAY VALVE THAT ATTACHED

589

00:15:43,742 --> 00:15:44,643

TO A TUBE AT THE END

590

00:15:44,643 --> 00:15:45,611

OF THE SYRINGE,

591

00:15:45,611 --> 00:15:46,612

AND THEN A WIRE EXTENDED

592

00:15:46,612 --> 00:15:48,147

FROM THE END OF THE PLUNGER,

593

00:15:48,147 --> 00:15:49,014

UH, ATTACHING TO

594

00:15:49,014 --> 00:15:50,482

THE 3D-PRINTED HANDLE.

595

00:15:50,482 --> 00:15:51,417

THEY ALSO HAD SOME UNIQUE

596

00:15:51,417 --> 00:15:52,785

COLOR CODING ON THEIR HANDLES,

597

00:15:52,785 --> 00:15:53,986

UH, WHICH-WHICH WAS, UH,

598

00:15:53,986 --> 00:15:54,887

REALLY, REALLY UNIQUE

599

00:15:54,887 --> 00:15:56,121

AND GOOD AS WELL.

600

00:15:56,121 --> 00:15:56,689

THE TEAM WEIGHED

601
00:15:56,689 --> 00:15:57,523
DIFFERENT OPTIONS,

602
00:15:57,523 --> 00:15:58,223
LOOKING AT LESSONS

603
00:15:58,223 --> 00:15:59,124
LEARNED FROM LAST YEAR,

604
00:15:59,124 --> 00:16:00,359
AND THAT'S CERTAINLY A COMPONENT

605
00:16:00,359 --> 00:16:01,960
OF ENGINEERING AND SCIENCE,

606
00:16:01,960 --> 00:16:02,928
IS WE ALWAYS TRY TO LEARN

607
00:16:02,928 --> 00:16:04,163
FROM THOSE THAT GO BEFORE

608
00:16:04,163 --> 00:16:05,631
IN EFFORTS IN THE PAST

609
00:16:05,631 --> 00:16:06,365
THAT MAYBE DIDN'T GO

610
00:16:06,365 --> 00:16:07,232
QUITE THE WAY

611
00:16:07,232 --> 00:16:08,367
THAT WE WANTED THEM TO.

612
00:16:08,367 --> 00:16:09,168
AND IN ADDITION, THIS TEAM

613
00:16:09,168 --> 00:16:10,602

DID SOMETHING REALLY UNIQUE

614

00:16:10,602 --> 00:16:11,737

AND THEY USED THEIR TIME

615

00:16:11,737 --> 00:16:13,339

TO GIVE BACK TO THEIR COMMUNITY

616

00:16:13,339 --> 00:16:14,073

WHILE WE'RE FACING

617

00:16:14,073 --> 00:16:16,075

A STAY-AT-HOME, UH, ISSUE,

618

00:16:16,075 --> 00:16:17,943

OBVIOUSLY, WE ALL ARE FACING,

619

00:16:17,943 --> 00:16:19,678

AND THAT IS THEY MANUFACTURED

620

00:16:19,678 --> 00:16:20,746

AND DEVELOPED MASKS

621

00:16:20,746 --> 00:16:22,114

FOR THEIR LOCAL COMMUNITY.

622

00:16:22,114 --> 00:16:22,715

SO THE WINNER

623

00:16:22,715 --> 00:16:23,916

IN THE HIGH SCHOOL DIVISION:

624

00:16:23,916 --> 00:16:25,584

SAINT THOMAS ACADEMY

625

00:16:25,584 --> 00:16:27,686

FROM MENDOTA HEIGHTS, MINNESOTA.

626
00:16:27,686 --> 00:16:29,788
CONGRATULATIONS, SAINT THOMAS.

627
00:16:29,788 --> 00:16:30,556
WINNER IN THE COLLEGE

628
00:16:30,556 --> 00:16:31,957
AND UNIVERSITY DIVISION,

629
00:16:31,957 --> 00:16:33,525
THEY CREATED A UNIQUE TOOL

630
00:16:33,525 --> 00:16:34,993
WITH A PLUNGER DESIGN

631
00:16:34,993 --> 00:16:36,462
THAT ALLOWED THE LIQUID TO FLOW

632
00:16:36,462 --> 00:16:37,796
INTO A SYRINGE.

633
00:16:37,796 --> 00:16:39,231
THE TEAM DID GO A STEP FURTHER

634
00:16:39,231 --> 00:16:41,066
THAN USING A SIMPLE SYRINGE.

635
00:16:41,066 --> 00:16:41,767
THE TEAM DESIGNED

636
00:16:41,767 --> 00:16:43,969
A PLUNGER HOLD OPEN COMPONENT

637
00:16:43,969 --> 00:16:46,472
THAT, WHEN ROTATED 45 DEGREES,

638
00:16:46,472 --> 00:16:47,706

IT LOCKS THE VIAL OPEN

639

00:16:47,706 --> 00:16:48,374

TO ALLOW THE FORCE

640

00:16:48,374 --> 00:16:50,209

OF THE SYRINGE TO COLLECT

641

00:16:50,209 --> 00:16:51,677

THE LIQUID AUTOMATICALLY,

642

00:16:51,677 --> 00:16:52,945

AND ULTIMATELY IT MINIMIZES

643

00:16:52,945 --> 00:16:54,413

THE EFFORTS OF THE ROVER

644

00:16:54,413 --> 00:16:56,048

[INDISTINCT]

645

00:16:56,048 --> 00:16:57,583

THE TEAM 3D PRINTED THE RIDE,

646

00:16:57,583 --> 00:16:58,784

THE HOLD-OPEN PIECE,

647

00:16:58,784 --> 00:17:00,018

SYRINGE BRACKET,

648

00:17:00,018 --> 00:17:01,587

AND THEY ALLOWED FOR THE DESIGN

649

00:17:01,587 --> 00:17:02,855

TO ALSO, UH, WORK

650

00:17:02,855 --> 00:17:04,089

WITH, UH, THEIR, UH,

651
00:17:04,089 --> 00:17:05,824
COLLECTION DEVICES AS WELL.

652
00:17:05,824 --> 00:17:07,192
UH, SO, LET US APPLAUD THE TEAM

653
00:17:07,192 --> 00:17:07,793
IN THE COLLEGE

654
00:17:07,793 --> 00:17:09,528
AND UNIVERSITY DIVISION AS WELL.

655
00:17:09,528 --> 00:17:10,529
THAT WINNER IS THE

656
00:17:10,529 --> 00:17:11,864
UNIVERSITY OF ALABAMA

657
00:17:11,864 --> 00:17:12,698
IN HUNTSVILLE.

658
00:17:12,698 --> 00:17:13,465
GO CHARGERS!

659
00:17:13,465 --> 00:17:14,266
THAT'S MY ALMA MATER,

660
00:17:14,266 --> 00:17:15,934
SO SPECIAL CONGRATS TO YOU,

661
00:17:15,934 --> 00:17:17,069
BUT THANKS TO ALL OF YOU

662
00:17:17,069 --> 00:17:18,270
FOR PARTICIPATING.

663
00:17:18,270 --> 00:17:19,972

GREAT COMPETITION,

664

00:17:19,972 --> 00:17:20,739

GREAT WORK,

665

00:17:20,739 --> 00:17:21,940

UNIQUE DESIGN,

666

00:17:21,940 --> 00:17:23,375

SOMETHING THAT WE AT NASA

667

00:17:23,375 --> 00:17:25,310

REALLY, UH, APPRECIATE.

668

00:17:25,310 --> 00:17:26,945

THANK YOU SO MUCH.

669

00:17:26,945 --> 00:17:28,781

>> HI, MY NAME IS KEVIN McGHAW,

670

00:17:28,781 --> 00:17:29,548

AND I'M THE DIRECTOR

671

00:17:29,548 --> 00:17:30,716

OF THE SOUTHEAST REGIONAL

672

00:17:30,716 --> 00:17:32,651

STEM ENGAGEMENT OFFICE,

673

00:17:32,651 --> 00:17:33,385

RESPONSIBLE FOR

674

00:17:33,385 --> 00:17:34,753

STEM ENGAGEMENT ACTIVITIES

675

00:17:34,753 --> 00:17:35,721

AT BOTH MARSHALL

676
00:17:35,721 --> 00:17:36,989
SPACEFLIGHT CENTER

677
00:17:36,989 --> 00:17:38,891
AND STENNIS SPACE CENTER.

678
00:17:38,891 --> 00:17:40,159
AND I'M THRILLED

679
00:17:40,159 --> 00:17:40,926
TO PRESENT THIS YEAR'S

680
00:17:40,926 --> 00:17:42,995
STEM ENGAGEMENT AWARD.

681
00:17:42,995 --> 00:17:44,096
THE STEM ENGAGEMENT AWARD

682
00:17:44,096 --> 00:17:45,030
PROVIDES TEAMS WITH

683
00:17:45,030 --> 00:17:46,565
AN OPPORTUNITY TO SHARE

684
00:17:46,565 --> 00:17:48,367
THEIR PASSION AND KNOWLEDGE

685
00:17:48,367 --> 00:17:49,835
WITH OTHERS WITH THE GOAL

686
00:17:49,835 --> 00:17:51,437
OF MOTIVATING OTHERS

687
00:17:51,437 --> 00:17:53,138
TO EXPLORE STEM OPTIONS

688
00:17:53,138 --> 00:17:54,706

IN THE FUTURE.

689

00:17:54,706 --> 00:17:55,674

EACH TEAM IS ASKED

690

00:17:55,674 --> 00:17:57,376

TO CONDUCT INSTRUCTIONAL

691

00:17:57,376 --> 00:17:58,977

HANDS-ON ACTIVITIES

692

00:17:58,977 --> 00:18:01,747

WITH AT LEAST 200 PARTICIPANTS,

693

00:18:01,747 --> 00:18:02,948

WHERE THEY ARE ENGAGED

694

00:18:02,948 --> 00:18:04,883

IN LEARNING A STEM TOPIC

695

00:18:04,883 --> 00:18:06,351

BY ACTIVELY PARTICIPATING IN

696

00:18:06,351 --> 00:18:09,054

EITHER A FACE-TO-FACE ACTIVITY

697

00:18:09,054 --> 00:18:10,155

THROUGH A, UH,

698

00:18:10,155 --> 00:18:12,424

INSTRUCTOR-LED FACILITATION,

699

00:18:12,424 --> 00:18:14,259

OR A PRESENTATION

700

00:18:14,259 --> 00:18:15,427

FROM VIRTUAL AVENUES

701
00:18:15,427 --> 00:18:18,363
LIKE WebX AND SKYPE.

702
00:18:18,363 --> 00:18:19,731
TEAMS WERE JUDGED ON NOT ONLY

703
00:18:19,731 --> 00:18:21,200
THE NUMBER OF STUDENTS REACHED,

704
00:18:21,200 --> 00:18:23,535
BUT ALSO THEIR CREATIVITY,

705
00:18:23,535 --> 00:18:26,104
UNIQUENESS OF ACTIVITIES,

706
00:18:26,104 --> 00:18:27,606
AND THE ABILITY TO DEMONSTRATE

707
00:18:27,606 --> 00:18:29,875
THE IMPACT OF EACH ENGAGEMENT

708
00:18:29,875 --> 00:18:31,710
ON STUDENT LEARNING.

709
00:18:31,710 --> 00:18:32,544
THIS YEAR'S WINNER

710
00:18:32,544 --> 00:18:33,512
IN THE HIGH SCHOOL DIVISION

711
00:18:33,512 --> 00:18:35,113
REACHED OUT TO ELEMENTARY

712
00:18:35,113 --> 00:18:36,215
AND JUNIOR HIGH SCHOOLS

713
00:18:36,215 --> 00:18:37,382

IN THEIR REGION.

714

00:18:37,382 --> 00:18:38,050

THEY WORKED WITH

715

00:18:38,050 --> 00:18:40,152

MORE THAN 1,000 STUDENTS

716

00:18:40,152 --> 00:18:41,420

TO ASSIST WITH THE DESIGN

717

00:18:41,420 --> 00:18:43,288

OF A 3D-PRINTED TOOL

718

00:18:43,288 --> 00:18:44,456

FOR THE LIQUID SAMPLE

719

00:18:44,456 --> 00:18:46,558

RETRIEVAL TASK.

720

00:18:46,558 --> 00:18:48,293

STUDENTS WORKED IN TEAMS,

721

00:18:48,293 --> 00:18:49,228

AND THEY UTILIZED

722

00:18:49,228 --> 00:18:50,295

ENGINEERING REPORTS

723

00:18:50,295 --> 00:18:51,997

TO DOCUMENT THEIR DESIGN

724

00:18:51,997 --> 00:18:53,065

AND THEIR USE

725

00:18:53,065 --> 00:18:55,400

OF CRITICAL THINKING SKILLS.

726
00:18:55,400 --> 00:18:56,668
THE STUDENT DESIGNS

727
00:18:56,668 --> 00:18:58,203
ASSISTED THE TEAM WITH

728
00:18:58,203 --> 00:19:01,373
THEIR FINAL 3D PRINTED TOOL.

729
00:19:01,373 --> 00:19:02,274
WE ARE SO PROUD

730
00:19:02,274 --> 00:19:03,275
OF THIS YEAR'S HIGH SCHOOL

731
00:19:03,275 --> 00:19:05,677
STEM ENGAGEMENT AWARD WINNER.

732
00:19:05,677 --> 00:19:06,445
THE WINNER FROM

733
00:19:06,445 --> 00:19:07,679
THE HIGH SCHOOL DIVISION

734
00:19:07,679 --> 00:19:09,715
IS BLUE RIDGE HIGH SCHOOL

735
00:19:09,715 --> 00:19:10,949
FROM LAKE RIDGE--

736
00:19:10,949 --> 00:19:13,719
LAKESIDE, ARIZONA.

737
00:19:13,719 --> 00:19:14,620
CONGRATULATIONS,

738
00:19:14,620 --> 00:19:17,489

BLUE RIDGE HIGH SCHOOL.

739

00:19:17,489 --> 00:19:18,223
IN THE COLLEGE

740

00:19:18,223 --> 00:19:19,291
OR UNIVERSITY DIVISION,

741

00:19:19,291 --> 00:19:20,526
THIS YEAR'S WINNER CHOSE

742

00:19:20,526 --> 00:19:22,094
TO FOCUS ON REACHING STUDENTS

743

00:19:22,094 --> 00:19:23,362
WITH DISABILITIES

744

00:19:23,362 --> 00:19:24,796
AND TEACHING CONCEPTS

745

00:19:24,796 --> 00:19:27,099
SUCH AS MATH, PHYSICS,

746

00:19:27,099 --> 00:19:29,535
PROGRAMMING, AND MECHANICS.

747

00:19:29,535 --> 00:19:30,235
THE TEAMS SUBMITTED

748

00:19:30,235 --> 00:19:32,204
A NUMBER OF LESSON PLANS,

749

00:19:32,204 --> 00:19:32,938
INCLUSIVE OF

750

00:19:32,938 --> 00:19:35,040
SIGN LANGUAGE INTERPRETERS,

751

00:19:35,040 --> 00:19:36,375

TRANSLATION MATERIALS

752

00:19:36,375 --> 00:19:38,076

AND DETAILED HANDS-ON

753

00:19:38,076 --> 00:19:39,611

CLASSROOM ACTIVITIES

754

00:19:39,611 --> 00:19:42,214

WITH EVALUATION METHODS.

755

00:19:42,214 --> 00:19:43,615

THESE ACTIVITIES INCLUDE THE USE

756

00:19:43,615 --> 00:19:46,618

OF LEGO KITS, PARACHUTES,

757

00:19:46,618 --> 00:19:49,288

AND MINIATURE CATAPULTS.

758

00:19:49,288 --> 00:19:50,088

THEIR GOAL WAS

759

00:19:50,088 --> 00:19:51,089

TO MOTIVATE STUDENTS

760

00:19:51,089 --> 00:19:52,691

WITH HEARING DISABILITIES

761

00:19:52,691 --> 00:19:54,793

TO PURSUE ENGINEERING CAREERS

762

00:19:54,793 --> 00:19:55,961

AND CONTRIBUTE

763

00:19:55,961 --> 00:19:56,695

TO THE DEVELOPMENT

764

00:19:56,695 --> 00:19:58,263
OF THEIR COUNTRY.

765

00:19:58,263 --> 00:19:58,997
I THINK THEY'VE

766

00:19:58,997 --> 00:20:00,499
DONE JUST THAT.

767

00:20:00,499 --> 00:20:01,266
THIS YEAR'S COLLEGE

768

00:20:01,266 --> 00:20:03,035
AND UNIVERSITY DIVISION

769

00:20:03,035 --> 00:20:04,303
OF THE STEM ENGAGEMENT AWARD

770

00:20:04,303 --> 00:20:08,574
GOES TO UNIVERSIDAD ECCI

771

00:20:08,574 --> 00:20:11,443
FROM BOGOTA, COLOMBIA.

772

00:20:11,443 --> 00:20:13,378
CONGRATULATIONS.