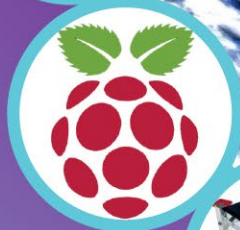




AIAA & BWSI PRESENT:

# BUILD A CUBESAT CHALLENGE

Interested in space or coding?  
Would you like to build a prototype satellite?



## Final Event Student Team Presentations and Awards Ceremony

**WHEN:** Saturday, May 21, 2022, 11:00am to 3:00pm EDT

**WEBINAR:** <https://web.mit.edu/webcast/beaverworks/s22/aiaa/>

**CHALLENGE WEBSITE:** [https://beaverworks.ll.mit.edu/CMS/bw/AIAA\\_BWSI\\_Challenge](https://beaverworks.ll.mit.edu/CMS/bw/AIAA_BWSI_Challenge)





## Welcome to AIAA-BWSI Build a CubeSat Challenge Final Event

Congratulations to everyone who made it this far!

I'm sure it was a challenging and intense journey to reach this point. You all had to learn a lot of new things, push that extra step to make progress each day, and figure out how to work as a team to get this far. Hats off to your determination and hard work!

I hope you have enjoyed and learned a lot about Aerospace Engineering through this challenge and have something to take away from your experience working with your teammates and mentors. Beyond the technical subjects, I believe hands-on projects like the CubeSat Challenge teach us how to work as a team to achieve some amazing results - Aerospace industry is full of such examples.

I believe the knowledge and the experience you have earned through this challenge will set you up well for your future journey, whether you'll continue to pursue Aerospace or other expertise.

I wish you the very best in your final event and your academic and professional endeavors!

Yours truly,

On behalf of AIAA-BWSI Build a CubeSat Challenge organizers.

Hiro Endo  
New England Section Chair  
American Institute of Aeronautics & Astronautics

This material is based upon work supported under Air Force Contract No. FA8721-05-C-0002 and/or FA8702-15-D-0001. Any opinions, findings, conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the U.S. Air Force. RAMS #1019772

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## **AIAA-BWSI Build a CubeSat Challenge Teams**

### **Flat Earthers**

(Lexington High School, Lexington, MA)

Team members:

Jihan Bhuiyan  
Nishitha Chhabra  
Divya Narayanan  
Helena Reavely  
Akhilesh Varma Sangaraju  
Ananya Sivasubramaniam  
Swati Sriram

Coaches:

Siva Yegnanarayanan  
Sharif Bhuiyan  
Ashok Narayanan

Mentor: Hannah Tomio

### **GonkBots**

(Algonquin Regional High School, Northborough, MA)

Team members:

Stef Linden  
Isabella Palit  
Fred Probst  
Shivnath Shankar  
Divyasiddha Shivashok  
Charles Tang  
Mihir Tatavarti  
Alex Wang  
Christopher Wang  
Jonathan Wang

Coach: Daniel Strickland

Mentor: Thomas Sebastian



### **HawkSat**

(Hunter College High School, New York, NY)

Team members:

Pierce Haider  
Jaemin Kim  
Olivia Long  
Logan Reich  
Alexa Rosenberg

Coach: Min Hsuan Kuo

Mentor: Michelle Sun

### **Mammoth Aerospace**

(Western Center Academy, Hemet, CA)

Team members:

Francis James Adaliga  
Zubin Carvalho  
Franco Doval  
Alexa Hadley  
Skye Kultawanich  
Yudhister Kumar  
Aaron Ma  
Levi Schain  
Isaiah Suso  
Vivian Xiao

Coach: Michael Horton

Mentor: Malkam Goldstein



### **Raiders**

(Wellesley High School, Wellesley, MA)

Team members:

Madeleine Allen  
Jaime Gonzalez  
Ryan Harding  
Gonzalo Martin  
Ali Riad

Coach: Oscar Gonzalez

Mentor: Conor Galligan

### **Satellite Warriors**

(Nipmuc Regional High School, Upton, MA)

Team members:

Sabrina Boyle  
Mallory Chace  
Connor Jason  
Kevin John  
Charlie Kerins  
Darryl Lubin  
James Overholt  
Kaylee Servis  
Jamie Sims  
Luke Venable

Coaches:

Ron Cochran  
Matthew Overholt

Mentor: Prof. Carl Hartsfield



### **Satickens**

(William H. Taft Charter High School, Woodland Hills, CA)

Team members:

Soyeon Kim  
Hyunwoo Lee  
Aakash Senthilnathan  
Jaden Suh  
Logan Weinstein

Coach: Christopher Shining

Mentor: Malkam Goldstein

### **Space Hunters**

(Alvirne High School, Hudson, NH)

Team members:

Nicholas Marcotte  
Sameer Murthy  
Raswanth Srinivasan  
Dylan Zilifian

Coaches:

Chithra Jayakuma  
Srinivasan Balasubramanian

Mentors: Jesse Olson, Jason Sievert

### **Yellow Dragons**

(Howard W. Blake High School, Tampa, FL)

Team members:

Benjamin Barrera-Altuna  
James LaFayette  
Igor Morales  
Jabez Rodriguez  
Ethan Stephanis

Coach: Clayton Nylund

Mentor: Kevin Donnelly



## **AIAA-BWSI Build a CubeSat Challenge Awards**

### **First Place Award**

#### **Satickens**

(William H. Taft Charter High School, Woodland Hills, CA)

### **Second Place Award**

#### **Satellite Warriors**

(Nipmuc Regional High School, Upton, MA)

### **Best Algorithm Design Award**

#### **Raiders**

(Wellesley High School, Wellesley, MA)

### **Best Presentation Award**

#### **Space Hunters**

(Alvirne High School, Hudson, NH)

### **Best Design Review Award**

#### **HawkSat**

(Hunter College High School, New York, NY)



## **AIAA-BWSI Build a CubeSat Challenge (Spring 2022)**

### **Advisors**

Prof. John Blandino (Worcester Polytechnic Institute Aerospace Engineering)  
Dr. Marshall Brenizer (MIT Lincoln Laboratory)  
Prof. Kerri Cahoy (MIT Department of Aeronautics and Astronautics)  
Hiroaki Endo (AIAA New England Section Chair)  
Prof. Carl Hartsfield (AIAA Small Satellites Technical Committee, Education Subcommittee Chair)

### **Staff**

#### **Program Coordinators**

Robert (Bob) Shin (MIT Beaver Works Director, MIT Lincoln Laboratory)  
Lisa Kelley (MIT Beaver Works Summer Institute Manager, MIT Lincoln Laboratory)  
Joel Grimm (MIT Beaver Works Manager, MIT Lincoln Laboratory)  
Scott VanBroekhoven (MIT Lincoln Laboratory)  
Prof. John Blandino (Worcester Polytechnic Institute Aerospace Engineering)  
Hiroaki Endo (AIAA New England Section)

#### **Build a CubeSat Online Course Curriculum**

Rebecca Keenan (MIT Lincoln Laboratory) - Lead  
Prof. Sharan Asundi (Old Dominion University, Mechanical & Aerospace Engineering)  
Prof. Kerri Cahoy (MIT Department of Aeronautics and Astronautics)

#### **Online Course Coordinators**

Julie Mullen (MIT Lincoln Laboratory)  
Michael Houle (MIT Lincoln Laboratory)

#### **IT Coordinator**

John Bilodeau (MIT Lincoln Laboratory)





## **Publications**

Rich Bushey (MIT Lincoln Laboratory)

## **MIT Video Productions Virtual Event Production**

Clayton Hainsworth, Director  
Rod Lindheim, Production Manager  
Kevin Tierney, Streaming Manager  
Barry Pugatch, Technical Director  
Alex Sachs, Editor  
Donna DeAngelis, Producer  
Dawn Morton, Client Services Manager

## **Team Selection Committee Members**

Rebecca Keenan (MIT Lincoln Laboratory)  
Patrick Law (Apple, Inc.)  
Scott VanBroekhoven (MIT Lincoln Laboratory)  
Hannah Tomio (MIT Department of Aeronautics and Astronautics)  
Stephen Tyson (MIT Lincoln Laboratory)

## **Judging Committee Members**

Prof. John Blandino (Worcester Polytechnic Institute Aerospace Engineering)  
Peter Dentch (Worcester Polytechnic Institute)  
Hiroaki Endo (AIAA New England Section)  
Evelyn Gomez (Lemelson-MIT Program)  
Patrick Law (Apple, Inc.)  
Jonathan (Brent) Parham (MIT Lincoln Laboratory)

## **Technical Mentors**

Peter Dentch (Worcester Polytechnic Institute)  
Kevin Donnelly (US Air Force Academy)  
Hiroaki Endo (AIAA New England Section)  
Gary Friedman (Veteran of NASA)  
Conor Galligan (MIT Lincoln Laboratory)  
Malkam Goldstein (Lockheed Martin)  
Prof. Carl Hartsfield (Air Force Institute of Technology)



Jess Johnson (MIT Department of Aeronautics and Astronautics)  
Jesse Olson (Air Force Research Laboratory)  
Jonathan (Brent) Parham (MIT Lincoln Laboratory)  
Rajan Patel (Schenck USA)  
Thomas Sebastian (MIT Lincoln Laboratory)  
Jason Sievert (Air Force Research Laboratory)  
Michelle Sun (Boston University)  
Hannah Tomio (MIT Department of Aeronautics and Astronautics)  
Stephen Tyson (MIT Lincoln Laboratory)

### **Guest Seminar Speakers**

Richard Chen (MIT Lincoln Laboratory)  
Andrew Dahir (MIT Lincoln Laboratory)  
Mary Dahl (MIT Department of Aeronautics and Astronautics)  
Gary Friedman (Veteran of NASA)  
Jonathan (Brent) Parham (MIT Lincoln Laboratory)  
Adam Shabselowitz (MIT Lincoln Laboratory)



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# MIT Beaver Works Summer Institute



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