



COLOR CONUNDRUM

BAE Systems Mini-Bot Challenge Color Conundrum Awards

Thanks to everyone for participating in Color Conundrum. We understand how challenging it was to take time for this, when you were also preparing your submissions for the FRC awards and competitions. Thank you!

Color Conundrum Challenge #2



Participating Teams

33 Teams

9 CT

13 MA

5 NH

5 ME

1 VT

0 RI

58 The Riot Crew, South Portland, ME

61 The Intimidators, Blackstone, MA

88 TJ Squared, Bridgewater, MA

155 The Technonuts, Berlin, CT

172 Northern Force, Falmouth & Gorham, ME

178 The 2nd Law Enforcers, Farmington, CT

195 CyberKnights, Southington, CT

839 Rosie Robotics, Agawam, MA

1100 T-Hawks, Northborough/Southborough, MA

1153 The Revolution, Walpole, MA

1729 Team Inconceivable!, Peterborough, NH

1831 Screaming Eagles, Gilford NH

1991 The Dragons, Hartford, CT

2168 Aluminum Falcons, Groton, CT

2170 Glastonbury Guardians, Glastonbury, CT

2262 Robo-Panthers, Holliston, MA

2342 Team Phoenix, Nashua, NH

2648 Infinite Loop, Oakland, ME

2712 Power Surge 4-H Robotics, Woodbury, CT

3182 Athena's Warriors, Hartford, CT

4169 Warrior Robotics, Sudbury, MA

4546 Shockwave Robotics, Dover, NH

4905 Andromeda One, Ayer, MA

5265 Radical Impact, Portland, ME

5563 Phalanx, Lynn, MA

5735 the Control Freaks, Wayland, MA

5846 Southcoast Corsairs, North Dartmouth, MA

5962 perSEVERE, Lowell, MA

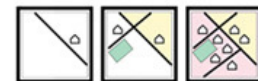
6337 MCI Terror Bytes, Pittsfield, ME

6731 Record Robotics, Belmont, MA

6762 Oscats, Hillsboro, NH

6933 Archytas, Bethel, VT

8167 Cognatives, Durham, CT



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Judge's Award

- The Judge's award recognizes a team whose solution to the Challenge was unique or otherwise noteworthy. This team's solution may not be the fastest, or have the most elegant code, but the judges felt that it solved the problem in a visibly creative way.
- This team turned the game on its head. To make things interesting, they added 6 additional batteries to the field, drove upside down, and still they were able to thread the needle at top speed between two batteries. For their acrobatic driving, the judges award the Lincoln Beechey award to team 2262 Robo-Panthers from Holliston, MA!



Team Spirit Award

- The Team Spirit award recognizes a team whose enthusiasm for the challenge, for their sponsors and for their team is evident in their video submission or in their robot decoration.
- This team submitted an autonomous run that was disqualified for the robot leaving the course during the run. Despite this setback, they took the time to create a humorous video that was perfectly timed to the run as it knocked over batteries and departed for points unknown. Adios, Romi, and congratulations to team 178 The 2nd Law Enforcers from Farmington, CT!

Teleoperated Performance

Course 1



- Third Place
10.22 seconds
Team 8167 Cognatives
Durham, CT
- Second Place
9.53 seconds
Team 2712 Power Surge 4-H Robotics
Woodbury, CT
- First Place
9.40 seconds
Team 195 Cyber Knights
Southington, Connecticut

Teleoperated Performance

Course 2



- Third Place
7.80 seconds
Team 172 Northern Force
Falmouth & Gorham, Maine
- Second Place
7.40 seconds
Team 4905 Andromeda One
Ayer, Massachusetts
- First Place
7.03 seconds
Team 155 The Technonuts
Berlin, Connecticut

Autonomous Performance

Course 1



- Third Place
19.10 seconds
Team 155 The Technonuts
Berlin, Connecticut
- Second Place
15.53 seconds
Team 4905 Andromeda One
Ayer, Massachusetts
- First Place
14.50 seconds
Team 5846 Southcoast Corsairs
North Dartmouth, MA

Autonomous Performance

Course 2



- Third Place
9.17 seconds
Team 61 The Intimidators
Blackstone, MA
- Second Place
8.75 seconds
Team 8167 Cognatives
Durham, CT
- First Place
8.63 seconds
Team 1729 Team Inconceivable!
Peterborough, New Hampshire

Autonomous Performance Line Followers



- Third Place
28.67 seconds
Team 5265 Radical Impact
Portland, ME
- Second Place
28.15 seconds
Team 6933 Archytas
Bethel, VT
- First Place
15.3 seconds
Team 1991 The Dragons
Hartford, CT

Most Innovative Solution (3rd place)



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- This team visualized their path to success. Their approach to the challenge enabled them to course correct without deploying robot code by editing their path on the dashboard. This idea is so powerful that it is included in the upcoming WPILib release!
- The third place Most Innovative Solution award goes to team 6762: The Oscats, from Hillsboro, New Hampshire!

Most Innovative Solution (2nd place)



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- This team demonstrated the power of sensor fusion by combining a trinity of line sensors with predefined turns. The sum of these two techniques resulted in a unique and performant autonomous sequence. They used only arithmetic, not geometry, to solve the problem.
- The second place Most Innovative Solution award goes to team 6933, Archytas, from Bethel, Vermont!

Most Innovative Solution (winner)



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- This team used all of their senses. They were able to see the path through the fire and stop safely once back at the nest. Their robot program also listened carefully to information coming from their high-performance vision system to effectively determine the best way forward. No one was able to slay this dragon.
- The first place Most Innovative Solution award goes to team 1991, The Dragons, from Hartford, Connecticut!

Shortest Combined Time

- Third Place
19.80 seconds
Team 195 Cyber Knights
Southington, Connecticut

- Second Place
19.10 seconds
Team 1729 Team Inconceivable!
Peterborough, New Hampshire

- First Place
18.97 seconds
Team 8167 Cognatives
Durham, CT



Thank you all!

- This has been a lot of work but also a lot of fun!
- We will have two more challenges, each building on the previous skill set.
- If you didn't participate in Color Conundrum, you can still participate in the rest of the challenges!



Thank you all!

- Thank you to the teams, to the mentors, to our judges from WPI and BAE Systems, to the amazing team at wpilb.org, to our print partners at Historic Mapworks and Turnone Graphics, to our sponsors, BAE Systems, Eversource and Titleist, and to New England FIRST for making this challenge possible.
- Please tune in next for the reveal of our next challenge: Frantic Fetch!

