

Trending Capstone Project Ideas For STEM Students

Here are the trending capstone project ideas for STEM students to try:

Environmental Innovation Projects

1. Build a simple robot that picks up trash on the beach.
2. Make a water filter with natural things like sand.
3. Create a phone charger that uses sunlight and old things.
4. Make a small wind machine to charge gadgets.
5. Make an app that shows how neighbors recycle.
6. Build a tiny greenhouse with plastic bottles.
7. Create a wearable tool to check air quality.
8. Build a system that turns food scraps into garden soil at school.
9. Make a setup that collects rain for plants.
10. Design a small insect house to help local bugs.
11. Build a bird feeder from used kitchen items.
12. Create a small vertical garden for tight spaces.
13. Make a model that shows how temperature changes our world.
14. Build a solar oven with cardboard and foil.
15. Design a small house model that uses less energy.
16. Make plant pots that break down using food scraps.
17. Create a game that teaches kids to save water.
18. Do an experiment that watches how leaves break down.
19. Build a tiny living world in a clear box.
20. Make a tool with simple parts to check pollution.

21. Create a digital map that shows animal travel.
22. Build a small electric car from old items.
23. Make a phone app to watch how plants grow.
24. Build a water pump model that uses wind.
25. Create a gardening idea for people in cities.
26. Make a poster to show how plastic harms the sea.
27. Build a small model of a building that shakes in an earthquake.
28. Create a project that maps safe paths for wildlife.
29. Build a kit that shows how new energy works.
30. Make a tiny water power generator.
31. Create a test pack for a lunch that makes no trash.
32. Build a system to track tree planting in the community.
33. Make a kit to test for small bits of plastic.
34. Do a survey to check the health of local nature.
35. Build a screen that shows how we use energy.
36. Create a contest for clean travel ideas.
37. Do an experiment to grow plants that belong here.
38. Make a model that shows hot spots in a city.
39. Create a tool for kids to count their carbon use.
40. Build a model that warns of big natural problems.
41. Make a map of where local wild animals live.
42. Create a model that shows smart ways to farm.
43. Build a game that teaches about new energy.
44. Make a tool for planning a community garden.

45. Build a kit to check if water is clean.
46. Create a plan to keep endangered animals safe.
47. Make a pack for products that is kind to Earth.
48. Build a small model to bring back wet lands.
49. Do a test to show how to beat natural disasters.
50. Create a system to track how we recycle old gadgets.

Robotics and Technology Projects

1. Build a basic robot that follows a line.
2. Make a small robot helper that listens to your voice.
3. Create a robot that avoids blocks using sensors.
4. Build a robot arm from old materials.
5. Make a tiny drone to help plant trees.
6. Create a robot that moves with your hand signals.
7. Build a robot that solves mazes with simple parts.
8. Make a robot friend that tells stories.
9. Create a robot that sorts colors with sensors.
10. Build a tool to help pets with special needs.
11. Make a robot that plays easy games.
12. Build a home guard robot that checks the temperature.
13. Create a rescue robot you can drive from afar.
14. Make a dancing robot that moves in sync.
15. Build a garden helper robot that waters plants.
16. Create a robot with lights that change with sounds.

17. Make a small robot that can walk.
18. Build a robot that sorts trash.
19. Create a robot hand with soft, bendy fingers.
20. Make a robot to help in emergencies.
21. Build an electronic robot that makes music.
22. Create a robot that helps with maps.
23. Make a robot that copies how animals move.
24. Build a small model of a fire-fighting robot.
25. Create a robot that can change one language to another.
26. Build a mobile robot to check the weather.
27. Make a simple human-like robot.
28. Create a robot that can play chess.
29. Build a robot that can explore underwater.
30. Make a robot to watch over farms.
31. Create a robot that can play soccer.
32. Build a robot that can read your feelings.
33. Make a small rover for space ideas.
34. Create a robot that helps you keep clean.
35. Build a tool that changes sign language.
36. Make a robot that can solve puzzles.
37. Create a small robot for search and rescue.
38. Build a light drone for quick delivery.
39. Make a robot that helps teach math.
40. Create a robot guide for a museum.

41. Build a robot that can paint or draw.
42. Make a small robot that plants seeds on farms.
43. Create a robot to track wild animals.
44. Build a robot that cleans tight areas.
45. Make a smart robot that watches over your home.
46. Create a robot that plays music.
47. Build a light drone for exploring.
48. Make a robot that helps older people.
49. Create a robot for science lessons.
50. Build a small robot that helps you talk.

Biomedical and Health Innovation Projects

1. Make a simple tool to learn first aid.
2. Create a wearable health tracker for kids.
3. Build a cheap model of a fake hand.
4. Make a kit to watch how germs grow.
5. Create a fun model to learn about the human body.
6. Build a small tool to test water quality.
7. Make a phone app to track food and health.
8. Build a simple microscope from home items.
9. Create a bracelet with important health info.
10. Make a phone app to help with feelings.
11. Build a tool to check heartbeats.
12. Make a system to see how well you sleep.

13. Create a good study space design.
14. Build a wearable tool to help with posture.
15. Make a game that helps lower stress.
16. Create a tool to track how wounds heal.
17. Build a system that gives food tips for you.
18. Make a tool that checks if loud sounds hurt your ears.
19. Create a phone app to get you moving.
20. Build a simple tool to check for sickness.
21. Make a phone app that tests your sight.
22. Create a system to track kids' shots.
23. Build a tool to see how physical therapy goes.
24. Make a system that shares emergency health info.
25. Create a wearable that warns of allergies.
26. Build a phone app that tracks your exercise.
27. Make a simple game to learn about health.
28. Create a tool to remind you to take your medicine.
29. Build a guide to help stop sports injuries.
30. Make an app that tracks how you feel.
31. Create a fun game to learn about food.
32. Build a tool to carry your health records.
33. Make a device that sends an emergency alert.
34. Create an app to manage long-term sickness.
35. Build a system that tracks child safety.
36. Make a tool to learn through touch and senses.

37. Create a way to organize your health info.
38. Build a game to learn medical words.
39. Make a model to practice surgery steps.
40. Create a system to track rehab progress.
41. Build a tool to check care for medical gear.
42. Make a tool to learn food labels.
43. Create a tool to practice emergency care.
44. Build a system to suggest health tests.
45. Make a tool to track research helpers.
46. Create a way to list medical gear.
47. Build a tool to check your health risks.
48. Make a tool for doctors to talk.
49. Create a tracker for donated medical supplies.
50. Build a platform for community health learning.

Space and Astronomy Projects

1. Build an app to track star groups.
2. Make a simple telescope from things at home.
3. Create a small model of our solar system.
4. Build a game that acts like a Mars rover.
5. Make a phone app to track satellites.
6. Create a tool to plan space trips.
7. Build a calculator to show asteroid dangers.
8. Make a game that simulates a rocket launch.

9. Create a model to compare planet air.
10. Build a game to learn about space.
11. Make an app to train like an astronaut.
12. Create a system to track space junk.
13. Build a small safe rocket.
14. Make a model that shows the moon land.
15. Create a device to check space weather.
16. Build a model that shows how galaxies form.
17. Make a small model of a space station.
18. Create a kit to show how meteorites hit.
19. Build a game that simulates space talks.
20. Make a tool to guess if aliens can live.
21. Create a tool to plan a space home.
22. Build a project with a small telescope lens.
23. Make a model to compare planet spins.
24. Create a calculator for space trip costs.
25. Build a challenge to design astronaut gear.
26. Make a model to show how to block space rays.
27. Create a test for no-gravity experiments.
28. Build a basic space suit design.
29. Make a tool to show big space distances.
30. Create a game to join a space trip.
31. Build a small model of a space elevator.
32. Make a tool to map planet surfaces.

33. Create a project to show space tech history.
34. Build an app to track space food needs.
35. Make a tool to talk between planets.
36. Create a model to test space farming.
37. Build a design for a space mission badge.
38. Make a poster that shows space history.
39. Create a guide for space technology.
40. Build a game to plan a space trip.
41. Make a tool to test space home survival.
42. Create a model to show space tech changes.
43. Build a tool to show how nations work in space.
44. Make a tool to map space resources.
45. Create a project to make a space film.
46. Build a challenge to design a space telescope.
47. Make a simulator for space mission training.
48. Create a game to guess future space tech.
49. Build a platform to learn about space trips.
50. Make a calculator to show if interstellar trips can work.

Capstone Project Ideas For STEM Students Medicine

1. Developing a machine learning algorithm for early detection of diabetic retinopathy using retinal scan images.
2. Design and implement a portable, low-cost blood glucose monitoring system using near-infrared spectroscopy.
3. Creating a mobile application for tracking and managing medication adherence in elderly patients.
4. Development of a 3D-printed customisable prosthetic hand with enhanced grip sensitivity and control.

5. Implementation of an AI-powered system for detecting pneumonia in chest X-rays.
6. Design of a wearable device for continuous monitoring of vital signs in high-risk pregnancies.
7. Creation of a virtual reality platform for surgical training and procedure simulation.
8. Development of a smart pill dispenser with remote monitoring capabilities for healthcare providers.
9. Implementation of a bacterial infection detection system using pattern recognition in blood samples.
10. Design of an automated external defibrillator with improved response time and accuracy.
11. Creation of a telemedicine platform designed explicitly for rural healthcare delivery.
12. Development of a non-invasive anaemia detection device using smartphone camera technology.
13. Implementation of an innovative wound dressing that monitors healing progress and infection markers.
14. Design of an AI-powered mental health monitoring system using voice pattern analysis.
15. Creation of a portable dialysis machine with improved efficiency and reduced power consumption.
16. Development of a brain-computer interface for assisting paralysed patients with communication.
17. Implementation of an innovative hospital bed system with automated patient positioning and monitoring.
18. Design of a real-time pathogen detection system for hospital environments.
19. Creation of a mobile stroke detection and assessment tool using smartphone sensors.
20. Development of an augmented reality system for vein visualisation during blood draws.
21. Implementation of an innovative inhaler system with medication tracking and air quality monitoring.
22. Design of a portable ultrasound device with AI-powered diagnostic capabilities.
23. Creation of a remote patient monitoring system for post-operative care.
24. Development of a dental imaging system using advanced 3D scanning technology.
25. Implementation of an innovative emergency response system for cardiac events in public spaces.

Capstone Project Ideas For STEM Students Philippines

26. Development of an early warning system for typhoons using local weather patterns and IoT sensors.
27. Creation of a smart agriculture system optimised for Philippine crops and climate conditions.
28. Design of a flood monitoring and prediction system for urban areas in Metro Manila.
29. Implementation of a renewable energy solution combining solar and wind power for remote islands.
30. Development of a water purification system using locally available materials.

31. Creation of a digital preservation system for indigenous Philippine languages and cultures.
32. Design of a disaster-resistant housing system using native materials.
33. Implementation of a smart traffic management system for congested urban areas.
34. Development of a marine ecosystem monitoring system for coral reef preservation.
35. Creation of a waste management solution for coastal communities.
36. Design of a sustainable aquaculture system for tilapia farming.
37. Implementation of a landslide detection system for mountainous regions.
38. Development of a mobile app for connecting local farmers to urban markets.
39. Creation of a public transportation optimisation system for jeepneys and buses.
40. Design of an air quality monitoring network for major cities.
41. Implementation of a healthcare delivery system for remote rural areas.
42. Development of a smart irrigation system for rice paddies.
43. Creation of a disaster response coordination platform for local government units.
44. Design of a renewable energy-powered water desalination system for coastal areas.
45. Implementation of a digital education platform optimised for low-bandwidth areas.
46. Development of a mosquito-borne disease prediction system using climate data.
47. Creation of a marine pollution monitoring system for Manila Bay.
48. Design of a sustainable bamboo processing facility for construction materials.
49. Implementation of a traditional medicine documentation and preservation system.
50. Development of a smart tourism platform highlighting cultural heritage sites.

Capstone Project Ideas For STEM Students Engineering

51. Design of a self-balancing electric vehicle with advanced stability control.
52. Development of a smart bridge monitoring system using structural health sensors.
53. Creation of an autonomous waste sorting system using machine learning.
54. Implementation of a solar-powered desalination plant with improved efficiency.
55. Design of a robotic system for automated warehouse management.
56. Development of a smart building management system with predictive maintenance.
57. Creation of a hydroelectric power generation system for small streams.
58. Implementation of a green roof system with automated maintenance.
59. Design of a noise reduction system for urban environments.
60. Development of a smart parking system using computer vision.
61. Creation of a vertical farming system with automated climate control.
62. Implementation of a smart grid system for renewable energy integration.
63. Design of a wave energy harvesting system for coastal areas.
64. Development of a drone-based infrastructure inspection system.
65. Creation of a smart manufacturing line with predictive quality control.
66. Implementation of a geothermal heating and cooling system for buildings.
67. Design of an earthquake-resistant building using smart materials.
68. Development of a railway track monitoring system using IoT sensors.
69. Creation of a smart traffic light system with emergency vehicle priority.
70. Implementation of a water leak detection system for municipal pipelines.
71. Design of a smart construction site safety monitoring system.
72. Development of a wind turbine optimisation system using AI.
73. Creation of a building energy efficiency monitoring platform.

74. Implementation of a smart waste management system for cities.
75. Design of a sustainable concrete mixture using recycled materials.

Capstone Project Ideas For STEM Students Technology

76. Development of a blockchain-based supply chain tracking system.
77. Creation of an AI-powered personal cybersecurity assistant.
78. Implementation of a quantum computing simulator for educational purposes.
79. Design of a natural language processing system for local languages.
80. Development of a smart home automation system with voice recognition.
81. Creation of an augmented reality platform for remote collaboration.
82. Implementation of a secure digital voting system using blockchain.
83. Design of a real-time language translation system using AI.
84. Development of a privacy-focused social media platform.
85. Creation of a cloud-based rendering system for 3D animations.
86. Implementation of a smart city data analytics platform.
87. Design of a decentralised file storage system.
88. Development of an AI-powered code review system.
89. Creation of a virtual classroom platform with enhanced interaction features.
90. Implementation of a facial recognition system with privacy protection.
91. Design of a cryptocurrency trading bot using machine learning.
92. Development of an edge computing platform for IoT devices.
93. Creation of a smart contract automation system.
94. Implementation of a deep learning system for video analysis.
95. Design of a quantum cryptography communication system.
96. Development of a federated learning platform for privacy preservation.
97. Creation of an AI-powered game development engine.
98. Implementation of a neural network visualisation tool.
99. Design of a secure messaging system with quantum encryption.
100. Development of a distributed computing platform for scientific research.

General STEM Capstone Project Topics

101. Development of a cross-disciplinary environmental monitoring system.
102. Creation of a smart healthcare platform combining IoT and AI.
103. Implementation of a sustainable energy management system.
104. Design of a biodegradable packaging solution using natural materials.
105. Development of an AI-powered climate change prediction model.
106. Creation of a smart agriculture system with automated pest control.
107. Implementation of a water quality monitoring network.
108. Design of a renewable energy storage solution.
109. Development of a waste-to-energy conversion system.
110. Create a smart transportation system to reduce emissions.
111. Implementation of a disaster prediction and management platform.
112. Design of a sustainable urban planning solution.
113. Development of a biodiversity monitoring system using AI.
114. Creation of a circular economy management platform.

115. Implementation of a smart grid optimisation system.
116. Design of a carbon capture and storage solution.
117. Development of an ocean cleanup technology system.
118. Creation of a sustainable food production platform.
119. Implementation of a smart resource management system.
120. Design of an air pollution reduction solution.
121. Development of a renewable energy forecasting system.
122. Creation of a sustainable water management platform.
123. Implementation of a smart waste recycling system.
124. Design of a green building optimisation solution.
125. Development of an ecosystem restoration monitoring platform.

Capstone Project Ideas for STEM Biology Students

1. Build a CRISPR tool to boost plants' drought resistance.
2. Make biosensor for quick find of water germs.
3. Plan a microplastic filter using sea organisms.
4. Study probiotic mixes to boost gut bug health.
5. Make fake tissue frame for healing body repairs.
6. Build a computer model to guess gene disease risks.
7. Plan break-down plastic made from bacterial fiber.
8. Make fast check tool for new sickness germs.
9. Make DNA sample way for watching wild animals.
10. Plan brain link for moving fake arm devices.
11. Study CRISPR repair for all passed-on gene errors.
12. Build lasting fish farms using algae culture.
13. Make cheap water clean system with bio filters.
14. Plan a body sensor for nonstop health checks.
15. Study how gut bugs affect mind and actions.
16. Build living fix for breaking down plastic.
17. Make computer model to guess protein fold moves.
18. Plan a new way to manage mosquito numbers.
19. Make plant vaccine drop method for poor nations.
20. Build computer tool to study hard gene data.
21. Study man-made plant work for new energy.
22. Plan drug drop system with tiny particle tech.
23. Make fast gene check way for farm plants.
24. Build living fix for metal in water harm.
25. Study weather shift effect on sea life mix.
26. Plan fake brain net to study gene codes.
27. Build lasting swap for drugs with virus help.
28. Make new plan to watch rare animal groups.
29. Plan gene change method for stronger farm plants.
30. Study how microplastics affect sea animal births.
31. Make cheap test kit for tropical sickness.
32. Build living fix for trapping CO₂ gas.
33. Plan tool to watch body defense.

34. Make custom food plan math from gene type.
35. Build method to recycle bio waste.
36. Study how brain change works in injury.
37. Plan earth watch system with bacteria sensors.
38. Make computer model to foresee virus spread.
39. Build long-lasting farm method with microbe help.
40. Plan gene fix way for brain decline.
41. Study gene tag changes in cancer.
42. Build living clean-up plan for dirty soil.
43. Make smart method to track stem cells.
44. Plan new way to stop drug resistance.
45. Build living code lock with DNA parts.
46. Make guess model for earth life shifts.
47. Study how gut bugs affect body fuel.
48. Plan long-lasting city farming with tall crops.
49. Make fast alert tool for animal germs spread.
50. Build a new nature-like stuff from earth ideas.