Design Thinking Project Ideas For Engineering Students

Here are top Design Thinking Project Ideas For Engineering Students:

Product Design Projects

1. A smart water bottle that glows when you need to drink.
2. Shoes that grow as kids' feet become larger.
3. A backpack with solar panels that charge phones when you walk outside.
4. A lunchbox that keeps food warm without power or batteries.
5. A door handle that opens without touching, to keep germs away.
6. Window blinds that move on their own when the sun is too strong.
7. A toothbrush that shows you the places you did not brush well.
8. A plant pot that waters the plants when the soil is too dry.
9. Toy blocks that glow and make sounds when you stack them.
10. A bike helmet with blinking lights on the back to show turns.
11. Utensils made for people who find it hard to hold normal forks and spoons.
12. Shoes that cast light on the ground ahead when you walk at night.
13. A floating trash collector that cleans up garbage from lakes and ponds.
14. A medicine bottle that reminds you when to take your pills.
15. A pen that vibrates softly to help people with shaky hands write better.
16. A cup that does not spill even if it is bumped accidentally.
17. A jacket that changes its color with the weather outside.
18. Glasses made to help colorblind people see colors more clearly.
19. A desk lamp that adjusts its brightness depending on your task.
20. Sticky notes that can be erased and used over and over again.
21. Keyboard keys with pictures for kids who are not reading yet.
22. A refrigerator drawer that helps fruits and vegetables stay fresh for a longer time.
23. A pill organizer that sounds alarms for people who take lots of medicine.
24. Gloves that work on phone screens and also keep your hands warm.
25. A book holder that flips pages for you without using your hands.
26. A reusable straw that folds to fit easily in your pocket.
27. An umbrella that dries fast and does not drip water all over.
28. A shower head that uses little water yet still feels strong.
29. A walking stick that vibrates when it finds holes or bumps ahead.
30. Ear covers that block only very loud and harmful sounds.
31. A bike lock that opens with your fingerprint instead of a key.
32. A car seat that is much easier for parents to set up right.
33. A trash can that helps you sort recycling from normal garbage.
34. Stove knobs that shut off by themselves if left on too long.
35. Magnetic building blocks that stick together to build neat structures.
36. A special spoon that stops hot soup from burning your mouth.
37. An alarm clock that wakes you up softly with light instead of sound.
38. Outdoor play equipment that gathers rainwater for nearby plants.
39. Board game pieces that glow when it is your turn to play.
40. Rescue floats that fill with air by themselves when tossed into water.

Environmental Engineering Projects

41. A small wind turbine that charges phones using wind from biking.
42. A rain barrel that filters water to make it clean for plants.
43. A solar oven that cooks food using just the sun's heat.
44. Special trash bags that break down and help feed plants.
45. A small machine that turns food scraps into soil for gardens.
46. A water filter that cleans muddy puddle water for safe drinking in emergencies.
47. Devices that catch plastic before it enters storm drains.
48. A small greenhouse that grows food in tiny spaces.
49. Special paint that keeps buildings cool in hot weather.
50. An air purifier that uses plants to clean the indoor air.
51. Shoes with soles made from recycled plastic bottles.
52. A backyard composter that does not smell and does not bring bugs.
53. A phone case made from plants that breaks down when tossed away.
54. Special blocks for walls that let air move through.
55. Roof tiles that collect rainwater and filter it for drinking.
56. Floating gardens that clean water while growing veggies.
57. A bike-powered generator that charges batteries for later use.
58. Special windows that keep homes warm in winter and cool in summer.
59. Small sensors that tell farmers when plants need water.
60. Paper made from farm waste instead of cutting trees.
61. Pens and pencils that have seeds inside and grow after use.
62. A shower timer that turns saving water into a fun game.
63. A bird feeder that gathers plastic when you trade seeds.
64. A small robot that picks up little plastic pieces from beaches.
65. Reusable food wraps that work better than plastic wrap.
66. Sidewalk tiles that make power when people walk on them.
67. An indoor vertical garden that grows food in very little space.
68. Special straws made from plants that break down naturally.
69. Bike lane dividers made from recycled plastic that glow at night.
70. Building bricks made from pollution caught from factory smoke.
71. A gas stove that traps harmful gases instead of letting them out.
72. A toilet that uses much less water and still works well.
73. A washing machine that cleans clothes with nearly no water.
74. A school desk made completely from recycled milk jugs.
75. Classroom lights powered by solar panels on the roof.
76. A kitchen counter made from melted recycled glass bottles.
77. Parking lots that let rainwater soak in instead of running off.
78. Playground equipment that pumps water while kids play.
79. Special bags that keep vegetables fresh without using plastic.
80. Planting pots that break down and give food to the plant inside.

Digital and App Design Projects

81. An app that shows kids how food travels from farms to stores.
82. A digital game that teaches kids where trash goes after you throw it away.

83. A computer program that helps design furniture from recycled materials.
84. An app that turns homework into fun challenges with friends.
85. A digital storybook where kids can make their own adventure endings.
86. A virtual reality program that shows what animals see, hear, and feel.
87. An app that helps kids with speech problems practice talking more.
88. A simple coding game that teaches kids to program their own pet.
89. A digital art program with special tools for kids with disabilities.
90. An app that tries to translate what babies might need when they cry.
91. A computer program that helps kids learn music by making songs.
92. A digital buddy that reminds kids to drink water and stretch.
93. An app that helps kids track the plants growing in their garden.
94. A virtual reality experience that shows how pollution harms ocean animals.
95. A digital game that teaches kids how to save money smartly.
96. An app that helps kids learn about feelings through fun activities.
97. A computer program that turns math problems into exciting treasure hunts.
98. An app that shows how machines and gadgets work with simple animations.
99. A digital pet that needs exercise, just like kids do.
100.   A virtual reality tour of important places around the world.
101.   An app that lets kids design their own clothes before buying them.
102.   A computer program that teaches kids how electricity works in houses.
103.   A digital journal with prompts to help kids share their feelings.
104.   An app that helps kids identify birds, bugs, and plants outside.
105.   A virtual reality experience where you feel as small as an ant.
106.   A digital cooking guide that helps kids make simple, healthy snacks.
107.   An app that turns cleaning up into a fun contest.
108.   A computer program that helps design perfect paper airplanes.
109.   A digital book creator where kids make stories about their day.
110.   An app that teaches sign language with fun interactive games.
111.   A virtual reality simulation that lets you fly like different birds.
112.   A digital tool that helps kids plan their own garden.
113.   An app that turns daily routines into superhero training missions.
114.   A computer program that shows how bridges stay strong.
115.   A virtual map explorer that teaches geography through adventures.
116.   A digital tool that helps kids make their own comic books.
117.   An app that reads facial expressions for kids with autism.
118.   A computer program that shows how weather forms with simple animations.
119.   A digital game that teaches renewable energy with city building play.
120.   An app that helps kids track and cut down on family energy use.

Assistive Technology Projects

121.   A special spoon that stays still for people with shaky hands.
122.   Glasses that tell you what they see for blind people.
123.   A doorbell that flashes lights for those who cannot hear well.
124.   A voice-controlled robot that brings things from around the house.
125.   A special keyboard for people who use only one hand.
126.   A wheelchair attachment that helps you reach items on high shelves.
127.   A smart cane that warns blind people about obstacles ahead.

128. A watch that vibrates in different ways for important alerts.
129. Magnetic clothes fasteners for those who have trouble using buttons.
130. A special pen grip for kids who find it hard to hold pencils.
131. Modified bicycle pedals for children with different leg sizes.
132. A communication board with pictures for children who do not speak.
133. A smart sock that alerts people with diabetes about foot issues.
134. Special scissors that work for both left- and right-handed kids.
135. Textured stickers for appliance buttons that blind people can touch.
136. A customized video game controller for players who use one hand.
137. A special straw that makes drinking easier when you are lying down.
138. Talking measuring cups for blind people who enjoy cooking.
139. A vibrating alarm clock for those who cannot hear well.
140. A simple phone interface for older people with memory problems.
141. Modified art supplies for kids with limited hand control.
142. An automatic page turner for people who cannot move their arms.
143. Special grip attachments for everyday items such as toothbrushes.
144. A headband that lets people control computers with their thoughts.
145. Modified playground equipment for children in wheelchairs.
146. Shoe inserts that buzz to help blind people when they walk.
147. Screen reader software that is easier for kids to understand.
148. Special cups that are very hard to spill for those with shaky hands.
149. A voice-activated home system that is simple for older people.
150. Modified cooking tools with safety features for visually impaired people.
151. A wearable device that changes speech to text for deaf people.
152. Special toys made for children with sensory processing issues.
153. A smart watch that checks for seizures in children with epilepsy.
154. Modified musical instruments for people with physical disabilities.
155. Shower controls that are easier for people with arthritis to use.
156. A voice-controlled drawing tool for people who cannot use their hands.
157. A simple shopping list app for people with memory issues.
158. Special foam grips that make it easier to hold pencils.
159. A wheelchair attachment that helps you move on rough outdoor ground.
160. A pill dispenser with clear audio instructions for blind people.

Transportation and Mobility Projects

161. A bike attachment that makes pedaling easier when climbing hills.
162. A scooter that folds up small enough to fit in a backpack.
163. Walking path lights that are powered by steps on special tiles.
164. A skateboard with special wheels that work on grass as well.
165. A car seat that is very easy to move between cars.
166. A school bus seat that adjusts for kids of different sizes.
167. A bike helmet with built-in turn signals and brake lights.
168. Special shoes that help make walking on ice safer.
169. Car windows that block bad sun rays but remain clear.
170. A bike that grows bigger as kids get taller.
171. A traffic light that senses when older people need more time to cross.
172. A school zone sign that lights up when kids are around.

173.   Special path material that is better for running and walking.
174.   A stroller that folds with one hand while still holding the baby.
175.   A city bus stop that protects people well from rain and snow.
176.   A bike rack that helps lift heavy bikes for smaller riders.
177.   A walking stick that can change into a seat for resting.
178.   A car seat that reminds parents not to forget their kids.
179.   A scooter brake that works when you lean back instead of bending down.
180.   Bike pedals that glow at night for more safety.
181.   A public bus interior made especially for older passengers.
182.   An airplane seat tray designed to be much more useful.
183.   A car console that helps reduce driver distractions from phones.
184.   Walking shoes that make power from every step you take.
185.   Traffic cones that change color when road conditions change.
186.   A shopping cart that follows you so you do not need to push it.
187.   A school crossing guard sign that is more visible in bad weather.
188.   An electric skateboard that is safer and easier to balance on.
189.   A bike light that is powered by the wheels turning.
190.   A car design that makes it easier to load groceries.
191.   A public transit seat that is comfortable for every body type.
192.   A special umbrella that attaches to bikes in the rain.
193.   A wheelchair that can climb stairs with a special mechanism.
194.   A taxi payment system made for passengers who are visually impaired.
195.   A navigation system that uses symbols for kids who cannot read yet.
196.   A bike share system made especially for young riders.
197.   An airport luggage cart that is easier for kids to help push.
198.   A car dashboard that is simpler and less distracting for drivers.
199.   A walking path that is gentler on knees and joints.
200.   School bus features that make the ride more comfy.

Smart Home and Living Space Projects

201.   A doorbell that lets you see and speak to visitors from afar.
202.   A light switch that works when you wave your hand close by.
203.   A shower head that tells you if you are using too much water.
204.   A refrigerator drawer that keeps fruits and vegetables fresh for a longer time.
205.   A toy box that helps kids sort and tidy up their toys.
206.   A window shade that adjusts by itself when sunlight changes.
207.   Furniture pieces that easily change for different uses.
208.   A kitchen faucet that turns on without needing to be touched.
209.   A thermostat that learns your schedule and saves energy.
210.   A bed that changes firmness based on who is sleeping on it.
211.   A mirror that shows the weather and important reminders.
212.   A washing machine that alerts you when clothes are left too long.
213.   A home entry system that unlocks doors with your fingerprint.
214.   A closet organizer that helps kids choose matching clothes.
215.   A garbage can that squashes trash to make more room.
216.   An indoor air quality monitor that tells you when to open windows.
217.   A night light that slowly gets brighter before your alarm.

218.	A television that changes its volume during loud commercials.
219.	A toilet that uses less water but works just as well.
220.	A bookshelf that makes it easier to find the books you want.
221.	Kitchen cabinets that can be reached by shorter people.
222.	A smoke detector that sends alerts to your phone when you are away.
223.	An oven that suggests cooking times based on what is inside.
224.	A front door that unlocks by itself when family members come near.
225.	A hot water system that never runs out during your shower.
226.	A recipe display that sticks to cabinets while you cook.
227.	Couch cushions that clean themselves when no one is sitting.
228.	A bathroom mirror that does not fog up after hot showers.
229.	A home sound system that follows you from one room to another.
230.	A floor that makes electricity when people walk on it.
231.	A ceiling fan that changes speed based on the room's temperature.
232.	A dishwasher that sorts and stacks dishes as it cleans them.
233.	A mail slot that scans and saves important letters digitally.
234.	A laundry hamper that automatically sorts clothes by color.
235.	An entryway rack that dries wet shoes and umbrellas fast.
236.	A bathroom scale that gives useful health tips and not just weight.
237.	A window that tints darker when the sun is too bright.
238.	A door that opens wider by itself for moving furniture.
239.	An indoor garden system that grows food with little care.
240.	A home intercom system made especially for kids to use.

Educational and School Projects

241.	A desk that changes height as children grow taller.
242.	A pencil grip that helps kids hold pencils correctly.
243.	A lunch tray made to make healthy food choices more fun.
244.	Playground equipment that teaches science while kids play.
245.	A school chair that helps kids sit with a better posture.
246.	An interactive wall that teaches history with touch and movement.
247.	A reading corner with special lights to reduce eye strain.
248.	Elementary school lockers that are easier for small children to use.
249.	Science lab stations that are made to be safer for young kids.
250.	Math learning blocks that light up when you connect them right.
251.	A classroom timer that shows time passing in a clear visual way.
252.	A learning tool that makes spelling fun with games.
253.	A school hallway design that cuts down on noise and running.
254.	A desk organizer that helps kids keep track of their supplies.
255.	A library book scanner that suggests similar books kids might like.
256.	An interactive globe that tells stories about many countries.
257.	A classroom carpet that teaches through games and set spaces.
258.	A school bus seat that is both safer and more comfy.
259.	An educational board game that teaches kids how to manage money.
260.	A special ruler that helps kids learn fractions better.
261.	Classroom lighting that changes to suit different activities.
262.	A school supply kit that helps teach kids to organize.

263. An interactive periodic table that shows how elements work in the real world.
264. A school water fountain made to fill water bottles easily.
265. Whiteboard markers that never dry out when left uncapped.
266. Classroom cubbies that help kids sort and find their materials.
267. A science kit that lets kids safely explore chemical reactions.
268. A comfortable reading nook that blocks out distractions in class.
269. An educational toy that teaches how simple machines work.
270. A classroom sound system that helps teachers not strain their voices.
271. A math learning tool that makes division easier to understand.
272. School playground markings that teach through active games.
273. A language learning device that makes practicing pronunciation fun.
274. A paint set with colors that mix to teach color theory.
275. A geography puzzle that teaches countries by shape and where they are.
276. A special calculator made for kids who are just learning math.
277. A classroom storage system that naturally teaches organization skills.
278. Educational building blocks that teach coding ideas through play.
279. School furniture that can be arranged into different learning spaces.
280. A tangible timeline tool that makes history more interactive.

Community and Public Space Projects

281. A playground slide that makes electricity when kids slide down.
282. A public bench that collects rainwater for plants nearby.
283. Community garden boxes made for wheelchair users to reach.
284. A bus stop with a mini library for trading books while waiting.
285. A street crossing signal that is easier for children to use.
286. A public water fountain that is fun and easy for kids.
287. Park fitness equipment made especially for older people.
288. A community bulletin board that organizes information by interests.
289. A recycling bin that turns trash sorting into a game.
290. A public art installation that changes with the weather.
291. A street light that uses less power but looks brighter.
292. A park bench with a shade cover for hot sunny days.
293. Playground equipment that teaches simple physics while playing.
294. A community garden tool shed that is accessible to wheelchair users.
295. A public bicycle pump station that is powered by solar energy.
296. A library book return that automatically sorts books by type.
297. A playground swing that is easier for parents to push kids on.
298. A community refrigerator for sharing extra food with neighbors.
299. A public restroom door handle that is more hygienic to use.
300. Park trail markers that teach about local plants and animals.

Innovation and Design Thinking Project Ideas

1. Build a paper bridge that can hold many big books.
2. Make a machine that sorts coins by their size on its own.

3. Create a school chair that changes into a spot for a nap.
4. Make a page turner that works without hands for reading at snack time.
5. Design a water bottle that shows when you should drink.
6. Create a lunchbox that keeps food warm for a long time.
7. Build a robot friend that picks up toys from the floor.
8. Design a special pencil holder that sharpens itself as you use it.
9. Create shoes that grow when your feet get bigger.
10. Build a backpack with lights inside to help you find your things.
11. Design a flower pot that tells you when to water it.
12. Build a homework desk that folds into a small cube.
13. Make a recycling sorter that makes sorting trash fun.
14. Design gloves that turn color when it gets cold.
15. Create a bike helmet that plays music and does not block your ears.
16. Design a jacket with deep pockets that warm your hands.
17. Build an umbrella that gathers rain for watering plants.
18. Create special glasses that let you see underwater very well.
19. Build a toothbrush that tells you when to stop brushing.
20. Design a pillow that plays soft stories while you sleep.
21. Create shoes that shine brightly when you walk or run.
22. Design a special map of your area that shows hidden treasures.
23. Build a bracelet that reminds you of important tasks.
24. Design a hat that keeps you cool on hot days.
25. Build a treehouse model with doors that work and a rope to climb.

Design Thinking Project Ideas for Computer Science Students

26. Make a computer game that shows kids how to save the oceans.
27. Design an app that helps friends learn sign language.
28. Build a website where kids can write stories together online.
29. Create a digital pet that grows as you study math.
30. Build a weather station that collects data from your backyard.
31. Create a digital diary that shows pictures with your words.
32. Build a program that changes drawings into live cartoons.
33. Create a typing game that makes learning to use the keyboard fun.
34. Build a digital garden where plants grow with each step.
35. Create a computer helper that reminds grandparents to take their medicine.
36. Make a program that changes your voice to many languages.
37. Design a video game controller for kids who need extra help.
38. Build a music maker that turns nature sounds into songs.
39. Create a computer mouse for people with small hands.
40. Build a screen reader that helps keep the internet safe for kids.
41. Design a digital cookbook that reads recipes out loud.
42. Build a math game that uses real problems kids can understand.
43. Create a program that sorts homework by its due dates.
44. Design a camera app that finds birds in the backyard.
45. Build a coding game where you design online roller coasters.
46. Make a robot friend that shows how you feel.

47. Create an app that turns regular books into talking books.
48. Build a program that helps train your memory with pictures.
49. Design a digital map maker for fun outdoor treasure hunts.
50. Build a website where kids can share art safely online.

Design Thinking Project Ideas for Mechanical Engineering Students

51. Build a toy car that runs only on rubber bands.
52. Create a machine that sorts candies by color by itself.
53. Build a simple windmill that can charge small batteries.
54. Make a robot arm that can lift tiny objects.
55. Create a small elevator that moves easily between floors.
56. Build a marble run with loops, jumps, and fun tricks.
57. Create a water wheel that makes power for small lights.
58. Build a paper airplane launcher that is safe and can adjust power.
59. Make a mini greenhouse that waters itself automatically.
60. Build a 3D puzzle with moving parts that lock.
61. Create a drawbridge model that works with a lifting part.
62. Make a car powered by balloons that goes in a straight line.
63. Build a catapult that safely throws soft balls at targets.
64. Create a walking robot toy with simple leg moves.
65. Make a flashlight that works by hand and does not need batteries.
66. Create a timer that rings when homework time is over.
67. Build a machine that feeds pets by itself at set times.
68. Create a water filter using only common household items.
69. Build a mini roller coaster with real safety features.
70. Make a wind-up toy that can walk up little hills.
71. Build a seesaw that balances different weights with simple physics.
72. Create a pulley system that lifts heavy backpacks with ease.
73. Build a machine that sorts recycling by itself.
74. Create a mini fan that runs on solar power from windows.
75. Make a claw machine that picks up small toys with a mechanical arm.

Simple Design Thinking Project Ideas for Students

76. Create better pencil grips for kids who have trouble writing.
77. Build a seat cushion that helps fidgety students pay attention.
78. Make a reading pointer that also acts as a bookmark.
79. Create a desk organizer from recycled home materials.
80. Build a special ruler that helps with math and drawing.
81. Create a quiet pencil sharpener for use during tests.
82. Build a book stand that works on a desk or on your lap.
83. Create a homework planner with fun stickers for tasks.
84. Build classroom labels that help everyone find supplies quickly.
85. Create a holder for art supplies that stops spills.
86. Build a hat that gives shade when you play outside.
87. Create a water bottle holder for bikes or the playground.

88. Make fruit holders that keep lunch from being squished.
89. Create a rain gauge to measure how big puddles are on the playground.
90. Build a quiet timer for taking turns in learning centers.
91. Create a paper holder for outdoor science lessons on windy days.
92. Make a classroom job chart with name tags that move.
93. Create a machine that sends papers down rows by itself.
94. Build special bookmarks that mark the line where you stopped.
95. Create a bendy ruler that measures curved items like plants.
96. Build a sorting system to keep desk supplies well organized.
97. Create simple binoculars from recycled items for watching nature.
98. Build a personal space marker for busy classrooms or libraries.
99. Create a paper holder that lets you type with both hands free.
100.   Make a special grip that helps everyone use scissors easily.