



Anthony Mathai

1 month ago

Squirrel Proof Bird Feeder Discussion

1. The problem identified in this video is that the squirrels would easily reach the bird feeder without much effort, inhibiting the birds' ability to feed on the seed in the birdfeeder. Eventually, however, the problem became so difficult to resolve because the squirrels were so innovative in their approach to getting access to the birdseed. Instead, the Youtuber became very innovative and decided to use the laws of mechanics to make an obstacle course for the squirrels to complete for entertainment purposes. This way, the public could get entertainment while we can observe the squirrels becoming innovative and adapting to their surroundings and finding their treat. I think the problem was solved in an indirect way - it was not solved but it the project was directed in a different direction.

2. I would probably have put a pole up with absolutely no places to jump on it in sight, and make the pole slippery so if the squirrel does try to jump or climb on it, it would slip off of the pole. The weight-activated perches or cages that surround the feeder do work but these feeders are usually breakable and the squirrels are notorious for just that. Also from the beginning, I had some experience with bird feeders so I would add some spicy additives that squirrels find inedible, which can deter them from raiding the feeder. However, I probably would not have the guts to be innovative and make an entire course just for the squirrel as that would be completely out of my skillset. Also, some things I would have changed in this experiment would probably be the amount of time it takes the trap to launch, because this would make them take more time to master the feeder.

3. Innovation is the key to the engineering proposal. For example, with the bird feeder experiment, if I were to take it an additional step further, I would propose creating a bird feeder with a specialized cover (sensor like) that only opens when a bird lands on the perch, but closes when a squirrel tries to access it. Cameras and data would have to be recorded and the designs would have to be manipulated based on the squirrel and bird feeding patterns, the effectiveness of the design, as well as how often the bird feeder is raided. For example, I might test for a week to see how often the squirrels invade the bird feeder. Based on this, I would incorporate a sensor that will detect squirrels for a specific time frame only, when I know I want to feed birds for that period of time.

Reply



Navdeep Badhan

1 month ago

RE: Squirrel Proof Bird Feeder Discussion

Seeing the squirrels adapt to the obstacles and power through was so entertaining. I thought that the problem was solved when Mark Rober installed a separate feeder for the squirrels. The squirrels deserved that separate feeder. I had a similar approach to the problem as well. It seemed that the squirrels could not climb up slippery poles, and as long as the pole is positioned such that a squirrel cannot reach it by jumping, you would have an effective squirrel-proof bird feeder. Mark Rober was pretty forgiving to the squirrels (for obvious reasons). That design you have mentioned is extremely interesting. It would also be super convenient if a bunch of those processes were automated, leaving you out of the conflict for the most part. If possible, how would you go about addressing the issue if the squirrels tended to raid the feeder when it is the bird's feeding time?



Tony Christopher

1 month ago

RE: Squirrel Proof Bird Feeder Discussion

Hello Anthony,

I absolutely agree that the purpose of the project here was intended to stop squirrels originally but soon became an innovative challenge to design the most elaborate obstacle course for squirrels for them to get to the bird feeder. In the end, the purpose wasn't truly and entirely solved. My thinking for how I would have approached this would have been exactly the same in that I was also thinking of prompting up the feeder on a slippery pole far from any jumping points. I do agree that the presentation of innovation in this video is quite relatable to our project and will teach us how to propose and demonstrate this from an engineering standpoint and display it in a simplified manner.



Asad Ali

1 month ago

RE: Squirrel Proof Bird Feeder Discussion

Hey Anthony,

I completely agree with you that the problem was solved in an indirect way. He didn't stop the squirrels from getting to the bird feeder but instead directed their attention away from it using walnuts. After they finish the walnuts, they would probably go for the bird feed again though. I also came up with a similar solution, to position the feeder in a place where the squirrels can't reach by jumping and using a slippery surface on

a pole to prevent them from climbing up. The idea of using spice to deter the squirrels may work but I can see that backfiring as the birds will eat from the same feeder and may eat some of the spice.