How to Cold Email a Professor based on: http://research.berkeley.edu/how-cold-email-professor

Cold emails, or introductory emails to professors you’ve never met, are one route to getting a research position. While they are not as ideal as a situation where you have already come to know a professor, they do sometimes open the door to great experiences. Here's some tips on how to write such an email:

Step 1. Introduce Yourself:
Address the professor with the appropriate title and their last name, for instance, “Dear Professor Jones”. In just a sentence or two, you should mention your name, year, and major. Keep it simple! For instance, “My name is John Smith, and I’m a freshman majoring in ____.”

Step 2. Explain why you’re emailing them about THEIR research:
Here, you need to show that this isn’t just-another-research-email. Thoroughly research what the professor does and provide some good evidence to them that you’ve done your homework and have a basic idea of the type of research they do in their lab. use the work you did in Step 0 to provide some good evidence that you’ve at least looked them up! You don’t need to be amazingly specific, you just need to show them that you have a genuine interest in what they do. For example: “I was looking at your website and found the idea behind your ongoing project on [x] to be very [x].” Step 3. What do you want from them?
Usually you will request “I would like to know if you have any open undergraduate research positions in your lab.” Modify it as necessary. You’ll also need to touch on the timing of this position. Are you looking for a fall position? A spring position?

Step 4. What is your availability?
If the professor has office hours, you can ask if it would be all right to come to their office hours on a certain day. If they don’t have office hours, request a meeting, and describe your availability for the next week or so, e.g. “I’m generally free Tuesday and Thursday afternoons as well as Friday mornings”. That way the professor, with a single email, can give you an appointment time.

Step 5. Why should they pick you?
This is a little tricky, since you might not necessarily have prior research experience. That’s okay though; think about what you’ve done that could demonstrate that you are a strong candidate. Challenging coursework? Genuine curiosity?
You can also rephrase a lack of experience as motivation to learn, telling the professor that regardless of your lack of experience, your deep motivation to grow and learn would make you a dedicated and hardworking member of their team.

Step 6. Resume
Attach your resume to the email and mention you’ve included them: “I’ve attached my resume...”. If you are unsure how to write a resume, see CCO’s Career Planning Handbook (https://www.cco.purdue.edu/Students/WhatWeOffer#CCOHandbook), located on their website.

Step 7. Review
Review your email before sending it out. Is the tone professional? Is the closing appropriate? Ask a friend to look it over, or maybe save it as a draft and come back to it later-sometimes you can be surprised at the small mistakes you overlooked!

Step 8. Follow-up
So now what? You should have a little game plan for what they should do following this email if they’re interested in you. Perhaps suggest meeting for coffee to discuss their research further, or just end the email saying that you look forward to hearing from them soon.

Cold emails are definitely a bit weird to send out the first few times, but if you spend some time on them, they can be a very effective manner of getting research positions. Though many professors might not even respond as they are extremely busy, all it takes is one yes!