Ask a lot of advice over a long period to find out whether you really want to go to grad school. There are a lot of misconceptions out there, but grad school can turn out to be a very interesting place. If you have difficulty asking professors for advice, you should understand that a large part of what professors do all day is to give people advice. As for the research, be aware that failure is common, and a lot of what you try won’t succeed. Your boss might have a lot of good ideas about how the universe functions, but as far as his or her little bit of the universe is concerned, it might only function in a very particular way. So a lot of the good ideas that he wants testing won’t be right. Therefore it’s best, if you have any possibility, any chance at all, to try several different things and don’t worry if most of them don’t work out; just follow up on the most promising line of research. That being said, a major pitfall for undergrads and grads alike is to attempt a project that is too big. Ask the wise people around you to help you narrow your research project once you have defined what it is.

The purpose of undergrad research is to help you get an agenda of your own and define your interests. Why do you want to do research? Where do you see yourself in ten years? Very difficult question for someone your age to answer, but unfortunately you’re not too young to need to think about it. But anyway, if you’ve made a guess at a field or topic that you might want to study, then pick a knowledgeable professor (or teaching assistant as they usually know which faculty employ undergrads), and ask for advice on how you can get involved in research. Maybe they will send you to someone else, or maybe they won’t, but it’s not a bad idea to visit several labs. Ask for research papers to read and ask yourself whether you would like to write such things. Undergraduate research can take many forms and most likely you will have to make opportunities for yourself by exploring options with various professors. Do you want to have a niche role in a large program or develop your own project? If you want a project of your own then you will need a good relationship with your supervisor but you should also get to know other people in the area because that will make it more interesting.