

Training Header Sheet with Change Log Form

Kentucky
Writing – Grade 8
2022 Spring Op

WR08914276258
Manned or robotic space exploration
Training Set

Qualification Set 1

Date	Comments	Version
05/2022	Training Set	Set A
10/2022	Release	Set B

The people of Earth should continue to pursue manned exploration of space because the main goal is sending people beyond Earth's orbit starting with the moon, eventually getting to Mars, and perhaps beyond. The moon is the first step. The moon is a destination of value in its own right. It is to test the belief that humans are destined to live off the land and do something worthwhile. Many space exploration missions include components designed to stimulate young people's interest in SREM. Scientists enlisted the help of students to conduct their investigations aboard the LSS, and in other cases students designed space experiments themselves. If we involved developing robotic and computer programs that could deal with things without people, people are not going to work and only robots are going to do all the things.

We should focus on solely on robotic missions instead because it is cheaper, more intelligent and efficient but to a certain point. We should also focus on robotic missions because I would rather have a robot go into space where they have go in places where most astronauts probably cant go like tight spaces. using robots to go onto Mars is good and it is keeping the astronauts from having to go out into the middle of no where and have to go find something that a robot could do in the same amount of time that a human could, it is also keeping astronauts safe and not being killed while not having to go out and explore Mars and I would rather a robot get damaged than a astronaut being killed, because you can rebuild a new robot but you cant rebuild a person that got killed. yes astronauts are smart and have the ability to carry more things but like it said in the text that "robots have made it to as far as eight years in Mars and Astronauts have only made it three days" and thats a long time difference

I feel like people will want to start getting into the space program because kids and teens now a days like and enjoy working with robots and stuff that deal with electrical stuff and now that the army have put a new branch calles the "Space force", which is like where the army helps NASA with trying to explore Mars or the outer space itself and the electrical solar stuff in space and I think all of those things combinde will want kids and teens to want to join a program like those things. Putting astronauts into space is incredibly expensive and is a waste of money because it is to expensive for people to go to space and only a few poeple when you can send more robots into space for the same amount or even cheaper. In conclusion we should send robots to space because it is safer, cheaper and have a better chance on finding something that is helpful to the Earth than people can find.

Are you interested in a trip to space? If you answered with a yes to that question you most likely will agree with my argument. People here on Earth should continue exploring space, instead of relying on robotic missions. Think of the joy and happiness children and young adults get from a trip to space, young children are fantasized by the topic. If our idea is to expand the human knowledge and become more educated on the topic, why shouldn't we see this first hand? Critics will argue that robotics are the more efficient version of today's astronauts however, we are the base of these robotics. Exploration is clearly the job for humans.

First, young children and teens are being inspired by so many different topics and people today they almost seem to be targeted. During the Apollo 17 flight studies show 89% of younger children were inspired. These children were inspired by a flight to the moon, led by humans. The Apollo flight encouraged young people to pursue the system of STEM. STEM meaning science, technology, engineering and mathematics. With children and teens highly encouraged and inspired by human activity, the space flights led by humans will quickly be more popular by the time the children are in college. Many social media platforms are targeting children in harmful ways while human space flights, do not even realize their popularity.

Next, if the idea of space travel is to expand the human knowledge of our world, why are the robotics even suggested? Dr. Londo Crawford says, "If the goal of space travel is to expand our knowledge of the universe, exploration will be most effective when carried by astronauts rather than robots on the surface of the planet." In the journal *Astronomy and Geophysics*, they believe human exploration would tell us more about the solar system. Meaning we should see things up close and in first hand. For example, humans are the faster, more versatile version of even the most advanced robotic feature. While looking into the topic of human knowledge, humans should see the features live and up close.

Finally, critics would say robotics are the faster more advanced version of humans, they are forgetting one main thing. Who is the base of all this technology? Exactly, it's humans. Without even realizing the human population all together has created the most efficient and advanced world ever seen, all with technology. We live in a society that relies on technology. Einstein once stated, if World War 3 is fought with technology and bombs, World War 4 would be fought with sticks and stones. Albert Einstein means that with our technology we are overpowering everything. We cannot use the technology that is killing our world to discover more about our world. The technology we create should be used however, not for an idea humans should see first hand.

As you can see, the space exploration should definitely be reconsidered and led by a group of humans. The people on the Earth want to know, so the people on earth should set out to see. Children and teens worldwide have been influenced by everything going on around them done by other ordinary people. Humans want and very much need to expand their knowledge and by doing so, they need to be the ones to take a step and explore. While the critics forget who the base of all this is, we can go out and explore, expand our knowledge, entertain young teens, and enlarge the popularity of wanting to step up and learn. As Dr. Crawford believes, astronauts would be the most effective way of expanding our knowledge, and the popularity of going out and getting. The explorations of space is a job for humans, and only the humans if we are expanding our knowledge, robotics is cheating.

I agree that the people should continue to pursue manned exploration of space. People have said that human space will tell us more. Also humans are better at performing the type of geological fieldwork. And robots have traveled as far in eight years than Apollo astronauts in three days. I think that these are some great reasons on why people should continue to pursue manned exploration of space.

First, A professor of planetary sciences at Birkbeck College, London, Crawford makes the case for human space stating why human space exploration in a new paper entitled "Dispelling the myth of robotic efficiency. It will tell us more about the Solar System than will robotic exploration alone. If the goal of space travel is to expand our knowledge of the universe, exploration will be most effective when carried out by astronauts rather than robots on the surface of a planet. This was written in the journal Astronomy and Geophysics.

Not only will humans tell us more but, human beings are better at performing the type of geological fieldwork. This makes planetary exploration scientifically valuable. They're faster and significantly more versatile than even the most advanced autonomous probes. Crawford had stated "People who argue for robotic exploration argue for more artificial intelligence, the capacity for robots to make more complex decisions that somehow leads to increased efficiency." You can make robots more intelligent and efficient to a certain point, but they won't get smaller and therefore cheaper.

Finally, Crawford explains "Spirit and Opportunity are fantastic things on Mars, but the fact that they've traveled as far in eight years as the Apollo astronauts traveled in three days speaks volumes." At a certain point the costs of developing 'smarter' autonomous rovers will exceed the meager gains in scientific collection and outstrip existing scientific budgets. Humans are faster at the job. Why waste money on something that takes so much more time?

I think that people should continue to pursue manned exploration of space. Humans in space will tell us more. Human beings are better at performing the type of geological fieldwork. Finally robots have traveled as far in eight years than Apollo astronauts in three days. These are the reasons why I think people should continue to pursue manned exploration of space.

Have you ever been to space? Well I haven't but I could one day if we can continue to explore space and not make robots do it. Are robots quicker than humans? Yes, they are but the experience is better for humans, plus humans can be hands on and discover places safe for other humans. Earth is slowly dying, are trees are burning and our air and water is polluted and it's death is going to take us down too. Which means we need to work harder to find a new Earth, Earth 2.0 to be exact. If we don't hurry Earth will die and we will die with it. So to answer your question yes, I do believe that we should continue to pursue manned exploration for the greater good of the people of Earth. You may ask how do I know all this, well the text of course. In the text it talks about how we might create space for humans to live in on the moon. It says that in paragraph three it also say that humans are "faster and significantly more versatile than even the most advanced autonomous probes." If this doesn't show you we should allow humans to explore space than I don't know what will but all I know is what I believe and that is that humans should continue to explore space.

While human space exploration and robotic missions both have their benefits and liabilities, the people on earth should continue to pursue manned exploration outside of earth but they should not completely decide to stop sending robots to space entirely.

Money is required when it comes to space exploration, and in "Debating Manned Moon Missions" Steven Weinberg states, "Manned missions to space are incredibly expensive...Above all, it's an incredible waste of money." This shows that sending people into the solar system is not cost effective, which is a serious liability especially if the mission doesn't yield knowledge or resources to make the mission worth it. In "Why Space Exploration Is a Job for Humans" Dr. Ian A. Crawford believes that "At a certain point, the costs of developing 'smarter' (but not better equipped) autonomous rovers will exceed the meager gains in scientific collection and outstrip existing scientific budgets." This shows that although the robots can be considered cheaper, there is belief that even the most advanced robots will not be able to gain enough scientific information to make them cost-effective. Although there seems to be no truly cheap option, unmanned and robotic space travel is in fact cheaper. Although the question still remains: When, if ever, will robots even be advanced enough to complete space missions in a shorter period of time?

When it comes to technological advancements, there is a huge difference between the technology needed for manned space travel and the technology needed for unmanned robotic space travel. For instance, humans need food, water, shelter, and oxygen. These are non-negotiable components of human survival that robots do not require to survive. Robots do need fuel and constant human instruction that may prove to be very inconvenient for those that must decipher what the robot is doing and send commands from millions of miles away. In "Why Space Exploration Is a Job for Humans" Dr. Ian A. Crawford sheds light on the fact that we are not advanced enough as humans to make the robots as agile and nimble as we are by stating, "...human beings are much better at performing the type of geological fieldwork that makes planetary exploration scientifically valuable: they're faster and significantly more versatile than even the most advanced autonomous probes." This further demonstrates that robots are not able to move the same way we do, therefore can be considered unequipped- at least with our modern technology- to perform the same actions as human beings do. In "Debating Manned Moon Missions", Steven Weinberg states, "Sending people to space may be a great show, but so much of what you do has to be built around the necessity of keeping people safe and alive that science takes a second place." This shows that the resources put into maintaining human safety is a disadvantage because the main focus is shifted away from the science of space missions. However, the funds lost to keeping people alive is out-weighed by the fact that robots are unable to gather the same information as humans in a quick manner, which could make missions pointless to be done by robots.

Human space exploration has a unique benefit compared to unmanned missions in space. The Apollo Space Shuttle that put Neil Armstrong on the moon created just as much excitement in planning as it did in action. Many people were invested in the Apollo Moon exploration programme during the 1960s. This interest correlated with the technical education earned by students: Physical Sciences PhDs, Engineering PhDs, and Mathematical Science PhDs. In "Benefits Stemming from Space Exploration" a survey was taken that found "...fifty per cent of the internationally renowned scientists who published in the prestigious journal *Nature* during the previous three years had been inspired by Apollo to become scientists; 89 percent of the respondents also agreed that human spaceflight inspires younger generations to study science. One of the lessons from Apollo is that having a visible space exploration programme is important in encouraging young people to pursue science, technology, engineering, and mathematics (STEM) fields. Such a programme will also send a message to students that they have the possibility of long-term exciting careers in science and technology." This shows that the astronauts became role models to young students that ended up guiding them to successful careers that they hadn't necessarily been dreaming of at a young age. Therefore manned space travel positively influences the youth in a way robotic missions are not able to.

Overall, robotic space travel can be very cost-effective compared to sending astronauts into space. In "Debating Manned Moon Missions" Steven Weinberg described that cost comparison by saying, "For the cost of putting a few people on a very limited set of locations on Mars we could have dozens of unmanned, robotic missions roving all over Mars and still have money left over to allow the more astronomical sciences to go forward. Unmanned missions have been tremendously important in making this the golden age of astronomy." This shows that robotic missions have money saving capabilities that can make space missions a reality, but human space missions have an undeniable characteristic that causes people of all ages to become interested and achieve their dreams.

Therefore, humans should continue to be sent to space, while robots should be given a fighting chance.

Space is an interesting place. We have sent people and robots into space. We have explored the moon with real astronauts, we have sent robots to explore mars but, which one is better?

Manned missions are more expensive to do and robot missions are cheap. Manned missions can be faster than the robots because in the writing it says "the fact that they've traveled as far in eight years as the Apollo astronauts traveled in three days speaks volume." which means that the robots are pretty slow.

The reason they are so cheap is because they are so small, this means that they can carry less tools and collect less samples. The robots also can get stuck, break, or even their battery can run out. Astronauts don't really have a limit to what they can carry so that's what makes them more valuable when it comes to space navigation. Humans can also do better at geological fieldwork than robots.

So yes I do think we should keep trying to explore space and planets with real astronauts. Real astronauts also inspire people to do science other than robots. Over 2 million teachers and 43 million students from 49 countries have been in space experiments and activities. A 2009 survey found that 89% of the people who took the survey agreed that manned missions inspired younger generations to study science.

Even though it may be costly, manned missions are better because we need to know this stuff by us actually being there. Like for Mars, rovers are good but we need to do more research for ourselves. We need to go up there and see if we can grow crops, can we make a habitat for humans up there, or can humans survive up there. These are questions that need to be answered by someone there. So yes we need to keep on exploring with humans.

Why people should pursue manned exploration of space

Do you think humans or robots should be the first to explore new things in outer space? Humans should be the ones exploring space not robots. Human space exploration will tell us more about the Solar System than robotic exploration alone. Exploration will be more effective when carried out by astronauts. The main goal is to send people beyond earth's orbit.

Foremost, human space exploration will tell us more about the Solar system than robotic exploration entirely. I know this is true because in "*Why Space Exploration Is a Job for Humans*" it says "Dispelling the myth of robotic efficiency: why humans space exploration will tell us more about the Solar System than will robotic exploration alone." Other people may say that robotic exploration is much faster and they are much better at performing much better geological fieldwork. That is not true, I know this because in "*Why Space Exploration Is a Job for Humans*" it says "At the core of Crawford's argument is that human beings are much better at performing their type of geological fieldwork that makes planetary exploration scientifically valuable: they're faster and significantly more versatile than even the most advanced autonomous probes."

Second, exploration will be more effective if carried out by astronauts. I know this because in "*Why Space Exploration Is a Job for Humans*" it says "If the goal of space travel is to expand our knowledge of the universe, argues Dr. Crawford, exploration will be most effective when carried out by astronauts rather than robots in the surface of a planet." Other people may say a robot can collect more things and cover more ground than an astronaut can. That is wrong, I know this is wrong because in "*Why Space Exploration Is a Job for Humans*" it states "With miniaturization, he explains, comes a depletion in the number of scientific instruments a probe can carry, the number of samples it can collect, and its ability to cover more ground."

To conclude, humans should be the ones exploring space, not robots. Astronauts tell us more about space than a robot could do (as of right now). All this evidence shows how much space exploration is a job for humans and not for robots. Astronauts are more reliable than a robot. Which one do you prefer to explore space?

I believe that they should continue to pursue manned exploration of space because even if they want to continue sending people to the moon they should know what's out there 1st before sending them just so they know incase i totally agree with dr . lan . a crawford becaus ewhat if the space shipp runs into something about the solar system of a natrual cause and they wouldnt know what to do because of this some people life could cost us not knowing more about where they are sending people reasons to support this "dr . crawfords exploration will be most effective hen carried out by astronauts rather than robots on the surfac of a planet " this s why i believe they should continue to pursue manned exporation of pace.

I think the people of Earth should continue to pursue the manned exploration of space. This would make more sense for many reasons including both financial and logical. It would make more financial sense because NASA wouldn't have to spend millions of dollars developing probes to explore space because they could send humans to space for much less. It also makes more logical sense because humans can do the same tasks as the machines just much faster and therefore more efficiently. I also think that manned space missions will prove to be more reliable than robotic missions because when a probe or a rover shuts down while it's in space there is no way for us to retrieve it so NASA literally has to leave millions of dollars worth of technology setting space where as a human can't shut down and that will help save lots of time and resources. Another reason I believe NASA should continue the exploration of space in general is because it inspires the younger generations to be interested in science. The statistics show that the number of Physical science engineering and mathematical science PhDs earned more than doubled in the years that the Apollo missions were still going on and then rapidly decreased in the years after.

There are however downsides to using humans over robots when it comes to ethics. Some say we don't know enough about space to know if it's safe to send our people there to explore it but I personally think it could be worth the risk. Another reason some people are against the manned exploration of space is because they feel that probes and rovers will be able to gather information for longer and will therefore prove more useful when in reality that is not true. Steven Weinberg says that the only thing we learn by putting people in space is how to put people in space but this is actually false because when we put people on the moon for the first time we learned a multitude of things about space that humans could never have known before that mission. A major downside to the using of humans in space exploration is the dangers of it, some people are OK with putting their life at risk for the greater good of the world but any people might not want to go on these explorations because of the potential dangers they might face, this leads me to believe that if we don't start raising younger generations that see human space exploration as an exciting opportunity then we will eventually not have any humans to explore space with.

Overall I think the risks of exploring space with manned missions will be well worth the benefits that our entire country and the world will receive. This does not mean that I'm pushing to completely halt the use of robotic space missions just think manned missions should be NASA's main focus for the time being, because non-manned space exploration missions have still proved very valuable to us in the past I still think NASA should continue to produce robotic space expeditions I just think NASA should put out a manned expedition first, and I'm excited to see if there will be one this decade.

Training Header Sheet with Change Log Form

Kentucky
Writing – Grade 8
2022 Spring Op

WR08914237248
Penny

Qualification Set 2

Date	Comments	Version
05/2022	Training Set	Set A
10/2022	Release	Set B

"...We chose to go to the moon not because it is easy, but it is hard..." President Kennedy's push to start space travel got America and the world interested in space flight, and people have been interested in human and robotic space flight for a very long time. It is becoming more of a topic, argument, and question in the present day, should we continue manned space flights or discontinue them and push for un-manned, robotic flights? Manned space flights should commence because humans can explore faster and better than robots, manned missions brings more education in STEM and inspires younger generations, and it will be less expensive and time consuming in the long run.

Humans are able to work and explore faster and need less than a robot does. A quote from sources says, "...human beings are much better at performing the type of geological fieldwork that makes planetary exploration scientifically valuable; they're faster and significantly more versatile than even the most advanced autonomous probes...[Mars rovers] Spirit and Opportunity are fantastic things on Mars, but the fact that they've traveled as far in eight years as the Apollo astronauts traveled in three days speaks volumes." These quotes are stating that a robot takes more time to move around and explore a planet. Humans are able to move quickly and usefully, and a crater or a dust storm might be nothing to a human, it could mean the end for a rover. Rovers have to move carefully and slowly to make sure it won't get stuck somewhere, which means their missions could take years (example, Spirit and Opportunity). Rovers also operate on solar panels, so even a little dust or dirt could block light from the panels depleting a rover's battery. Humans run on food and water, they don't need the sun for energy, so they can go wherever they please to.

Manned spaceflights will bring up education in math, science, engineering, and inspire younger generations to go into these pathways. In the sources, a quote states, "A 2009 survey found that fifty percent of the internationally renowned scientists who published in the prestigious journal *Nature* during the previous three years had been inspired by Apollo to become scientists; 89 percent of the respondents also agreed that human spaceflight inspires younger generations to study science... Today... space exploration missions include components designed to stimulate young people's interest in STEM. More than 2 million teachers and 43 million students from 49 countries have associated with student experiments with the International Space Station (ISS)... the ISS has attracted the interest of tens of thousands of young people." This section is proof that not only did the Apollo program from 1961 inspire people, humankind in space in the present day is inspiring all generations. Not only did this enliven just younger people, it's inspired people of all kinds- all races, gender, religion, etc. STEM is our future in the world and space so it is important to get people to work in these positions.

Humans are already "programmed" to be intelligent and know what to do when they go to an unknown planet, therefore this will save a lot of time and money. From the sources it states, "People who argue for robotic exploration argue for more artificial intelligence, the capacity for robots to make more complex decisions... You can make robots more intelligent and efficient to a certain point, but they won't get smaller and therefore cheaper... At a certain point, the costs of developing "smarter" (but not better equipped) autonomous rovers will exceed the meager gains in scientific collection and outstrip existing scientific budgets." This part from the sources is stating if we want better and smart rovers, it will take a lot of money and time. Even if we made rovers smarter, that doesn't mean they will be better equipped to explore and get data from space. Humans on the other hand, can do this work and be equipped with the right tools and knowledge to explore and work quickly, making them more efficient.

On the other hand, some might say that human space flight is a waste of money, or unmanned missions have been more important, or that we will get more technological stimulus from developing robotics and computer programs to go into space. With the very first human space landing, we learned and got more than we ever had with humans. They were able to see the moon and describe the sights while they were up there and even take pictures, and it was not a waste of money. That was a grand milestone for humankind, and it might have not have been as memorable if a robot did it. Even if we had taken the time to design a robot for that landing, we had much less technological knowledge than we do now, so we might have gotten nothing from years work. And yes, by programming robots you can get more technological stimulus, but it would be greater for people to go and explore what is out there to have a human description of our universe. Robots still today cannot describe and look at things the same way a human can.

Humans are faster, smarter, and less expensive than space robots and rovers. Consequently, robots are helpful for daily life some things, but they are not the best choice for space flight. There have been discussions on whether humans can live in space, so we need actual living person to go to planets and do the research and discovery to see if that planet might be the future of humankind. We need humans in STEM jobs to research, discover, and design items that could be useful in our pathway to the unknown in space flight.

The first part is about how nasa got its symbol while obama was in the offse at first there were two sysmbols but then but they chang it becase the bird is getting old because it was used for every thing in any thing so they wanted to make a new one that rapersent there compeny in now its one the biggst compens in the world because it wa all so the first team of astronots to go to the moon. the goal was to go to the moon but they thoght it was not going to work in they were was wered that the atmospher was going to exploed the plain or they were not going to make it up that high but insted of useing robots what evey body agreed on he sent up people in he was right when they got on the moon they was happy they achved the goal the they had to think how to get down.

now we are conpering between then in now in we been to spas hunderds of trnes noe we looking for a new earth in there arenew things on the moon that we funed last time they been to the moon was 1972 but now we got people in spase now but when we go to space now we got new tecnolgy so we can comunaceat with people at the staions in how they can get monfoings in fix the in side the ship instaed of fixing out side in we got sidlights so we dont get lost in they braing enagy from the sunto give us powe.

The people of earth should continue to pursue manned exploration of space instead of just focusing on robot missions because, robots can not do certain things humans can do. The robots are less efficient to find new things about earth because they are not effective. The robots are not only less efficient but they are more expensive. Lastly if we want humans to live in other places than earth, then we need to have humans see what it is like in space and have humans explore to see what it is actually like.

First, the first reason why we should still have manned missions in space is because robots are not as efficient and effective as humans. Dr. Crawford states that human beings are much better at performing the type of fieldwork that makes planetary exploration scientifically valuable. Crawford states that people who argue for robot exploration argue for more artificial intelligence which in lots of ways could not benefit to us. We also are faster and can get all the information we need quickly.

Not only are robots less efficient but, they are also more expensive. It is already expensive to get the robots in space. They also have to build the robots and make sure they get the job that needs to be done is finished and the information is accurate. Crawford states that robots could be cheaper but that one of the things that makes the robots cheap is miniaturization. You can make the robots more intelligent and efficient to a certain point, but they won't get smaller and therefore cheaper.

Lastly, if we want humans to live other places than earth then we need humans exploring places and seeing if it is possible. We can make robots go into any conditions but we don't know what those conditions are actually like to see if it is safe for humans. Manned exploration is better because we are not always going to be here to make the robots so we might as well go out there and explore for ourselves.

Manned exploration is better for everyone and I know people that would love to explore space. We are not getting ourselves anywhere by placing robots instead of living things in space. So yes manned exploration should still be available in our space programs.

Earth should focus solely on robotic because manned missions to space are incredibly expensive and don't serve any important purpose, it would involve developing robotics and computer programs that could deal with things in real without people around, and robotic missions roving all over Mars and still money left over to allow the more astronomical science to go forward.

Manned space mission to space are incredibly expensive and don't serve any important purpose. In the text it says "It isn't a good way to do science, and funds are being drained from the real science that NASA does. Also, it isn't helping America in depth because rockets can cost millions and maybe even billions because they have to pay the person money to go to space. But, if it's a robot they don't have to spend money by paying it to go to space. This is why manned space missions are incredibly expensive and don't serve any important purpose.

Second reason is that robotics missions roving missions all over Mars and still have money left over to allow the more astronomical sciences to go forward. In the text it states "Unmanned missions have been tremendously important in making a golden age of astronomy. Also, robotics don't have to get paid to go to space where humans would have to get paid to go to space. Next, if they sent more robotic they would have more money to spend on finding new things or technology. Last, NASA could find out a lot more things about space if they sent robotics. This is why I think robotic missions roving all over Mars and still have money left over to allow the more astronomical science to go forward.

Last reason is that it would involve developing robotics and computer programs that could deal with things in real time without people around. If NASA sent robotics to space they would have money to develop robotics and computer programs. Also, if this happened they would help find cures for diseases. Last, they would have things to know if people weren't here on Earth. This is why it would involve developing robotics and computer programs that could deal with things in real time without people around.

This is why focusing on solely on robotic mission instead is better than pursuing manned exploration of space.

Can you imagine, being up in space, headed right towards Mars, when suddenly, an asteroid hits your ship. You are headed right towards the sun now, ready to be burnt alive. Thinking of how short your life was. Sadly, many of these accidents can occur when in space. Now imagine, it was a robot that had been in that ship. No human lives were lost in this accident. Astronauts and scientists have been studying and exploring space for decades. This is a very dangerous job for both the scientists, and the astronauts. However, recently, scientists have been looking into using robots to explore space as an alternative. This idea has received a lot of hatred, and praise. Earth should focus solely on robotic missions to space because it is safer for humans, is cheaper, and will benefit Earth the most.

One reason why Earth should focus solely on robotic missions into space is because it is safer for humans. Cosmologist Steven Weinberg states that, "Sending people to space may be a great show, but so much of what you do has to be built around the necessity of keeping people safe and alive that science takes a second place." (Fletcher) This proves that sending humans to space is very dangerous and requires a lot of safety measures. If these safety measures fail to work, the person aboard the ship may die. This can cause issues for the institution such as being sued by the family of the person aboard the ship.

Another reason why Earth should focus solely on robotic missions to space is because it is cheaper. Author Jared Keller states that, "As financial constraints threaten the possibility of future ventures into outer space, many in the astronomical community are advocating for the increased use of unmanned robotic spacecraft." (Keller) This shows that many scientists see this as an alternative in order to save money for other projects at space stations such as NASA. Weinberg also states that, "Manned missions to space are incredibly expensive and don't serve any important purpose. It isn't a good way of doing science, and funds are being drained from the real science that NASA does." (Fletcher) This further explains that doing manned missions are a waste of time and money. This money can be used for science at NASA that will help scientists make advancements in the science behind Outer Space.

One final reason why Earth should focus solely on robotic missions is because it will benefit Earth the most. Weinberg states that, "Very often the case is made that putting people into space pushes technology and that's good for technology on earth. I think that's nonsense. The kind of technological stimulus we would get from unmanned space exploration is much greater. It would involve developing robotics and computer programs that could deal with things in real time without people around. That's the sort of thing that's tremendously useful on earth." (Fletcher) This proves that using robots would help the Earth learn more about space and do things that people couldn't do such as using computer programs that can deal with any issues that occur in real time. Weinberg goes on to state, "The only thing you learn by developing the technology to put people into space, is how to put people into space." This proves you cannot just put humans into space and experiment what might happen. We have to be cautious, and the use of robots will help us learn quicker and safer on how to take a human to space properly.

Some people may say that manned exploration of space will encourage more people to go into a career field involving math, science, engineering, or technology. However, adults with common sense will know that this is a very dangerous career to get in to. These adults will then most likely choose something safer that does not involve traveling to space. A safer option if wanting to enter a career involving STEM would be engineering or a banker who deals with money. It is important to keep people safe, while still allowing them to pursue their dreams.

The people of Earth should focus solely on robotic missions because it is safer for humans, cheaper, and will benefit Earth more. Space is a very unpredictable, exciting place to go. However, it is important to know of the consequences of traveling to space. Sending robots to space will help make some of these consequences less negative and may benefit the future of astronomy. Would you put your life in danger just to see the moon?

yes cause they could find undiscovered things or black holes or another universe or aliens and ufo sightings or life on another planet or weird mutations or people or see something or robotic item sent to space to monitor it or new planets

I believe that we as a country should indeed push for more people to be sent on explorations in space. I think that there is a possibility to have humans live on another planet. Humans also are able to carry more while they are also more effective and faster at gathering data in space. We also need to go to the moon because there is a possibility that if we learn more about the moon we could go to other planets like Mars.

First off humans are better at doing the field work that needs to be done because they have multiple people helping to decide whether or not their choice is a good call or not. But the robots are either being controlled by one or very few people making choices. Some of the robots are doing what they are programmed to do, this can lead to problems if the robots need to pick something up or get over rough terrain. Like if a robot wants to collect a sample but the arm on the robot is too short so you can not collect the sample that they want. While a human is able to just pick up the rock because they have more dexterous hands than a robot. Robots also can not collect as much as humans because they are being built to be smaller. This can be proven by Dr. Ian A. Crawford, Dr. Crawford is a professor of planetary sciences at Birkbeck College, London. Dr. Crawford made an argument that "With miniaturization, he explains, comes a depletion of the number of scientific instruments a probe can carry, the number of samples it can collect, and its ability to cover more ground" This shows that the smaller robots become the less they can do. But humans are not fluctuating in their capability in doing tasks such as collecting samples of rocks.

Secondly our planet is dying very fast and we might need somewhere else to live. Our planet is becoming warmer, we are destroying ecosystems, and making the air more polluted by the minute. In the future young people will not be able to enjoy the same privileges as us. Such as beautiful sights to visit or amazing creatures to see because we are destroying these places that so many plants and animals call home. So in the future I believe that we will all either die or few of us will be picked to go live on another planet. As John Logsdon the Director of Space Policy Institute at George Washington University said "This is not primarily about science, and therefore not primarily about the discovery of fundamental new knowledge. It is to test the belief that humans are destined to live in other places in addition to earth. In order to do that, they have to be able to live off the land and do something worthwhile. Exploration lets us find out whether both of these are possible..." And the only way to find out is by sending humans to another planet because robots are not humans and should not decide where we can live or not.

Lastly if we go beyond Earth's orbit that we should revisit the moon. I believe that if we go to the moon there is a possibility that some things such as the loss of gravity and other things that it could help us to go to other planets like Mars. As John Logsdon said "The moon is a destination of value in its own right, because there is lots we can do there that will help us learn how to go to Mars." If we send robots we can not have the first hand experience the robot would have. Therefore we might not understand the moon and Mars that well because we were watching through a monitor and have a robot that might make a mistake do the work for us.

These were the three main reasons why we should send people and not robots to the moon. There is a possibility that we could live on another planet, we are also more effective and faster than the robots at collecting data, and we could also learn to go to Mars by revisiting the moon.

I think robotic missions should continue. I think this because to get to another planet takes about 2 to 4 years and you never know how a humans body can react in space for that long. Also the robot can comformate ancient historical information about life of any other sources. The technology of a robot can make missions to other planets easier because you wont have to worry about it dying. And if the space shuttle starts to maunfuction the robot can either repair it or use its own rocket fuel to continue the mission. And the robot won't sufficate its a smooth mission with no casualties or deaths of a human astronaut. "The next giant leap,then,will be taken with robotic feet". Meaning the next big jump in scientific exploration is going to be with using a robot. "If the goal of space trave is to expand our knowledge of the universe...". Meaning the goal of traveling through space is to help us as humans better understand how space works and where it operates and how to discover more things about it and what better way to do that then with robots. Believe it or not they sent 2 robots to mars and they got pictures of the planet and a lot of informaton, so with the technology we have today there is no telling what we can find out next. "People who argue for robotic exploration argue for more artificial intelligence, the capacity for robots to make more complex decisions that somehow leads to increased efficiency..". Meaning that people actually argue for robotic exploration and the capacity of robots have an increase in efficiency. "You can make robots more intelligent and efficient...". We in today's society have the technology to create a more intelligent/efficient robot, we can make robots smarter and faster and better than us humans. And this is why I think we should continue on working on robots to go on missions.

The people of Earth should continue to pursue the exploration of space. If people continue this, they would be able to actually talk and describe what's going on, rather than a robot having limited things to say. People continuing this would be all around better for knowledge, and better for performing the required tasks.

First of all, people continuing the research would be better overall for human knowledge. They would be able to actually see and better describe what they're seeing to other people. Dr. Crawford states, " If the goal of space travel is to expand our knowledge of the universe, exploration will be most effective when carried out by astronauts rather than robots on the surface of a planet.

Secondly, humans exploring space can perform necessary tasks better than the robots can. Crawford says, " Human beings are much better at performing the type of geological fieldwork that makes planetary exploration scientifically valuable: they're faster and scientifically more versatile than even the most advanced autonomous probes." This explains that people will be able to perform any task better than even the smartest robots.

On the other hand, robots could be cheaper to use. Crawford explains, " But one of the things that make them cheap is miniaturization, comes a depletion in the number of scientific instruments a probe can carry, the number of samples it can collect and it's ability to cover more ground." However, people would still be better at completing this job. Crawford also states, "(Mars rovers) Spirit and Opportunity are fantastic things on Mars, but the fact that they've travelled as far in eight years as the Apollo astronauts traveled in three days speaks volume" This proves that not only do humans perform the tasks better, but they can do it in way less time.

In conclusion, human astronauts would be better to continue the exploration of space. They can describe their knowledge better, they're better at performing tasks, and they can do everything way faster than a robot could do.

In my opinion exploring what is beyond earth is a job for humans, people are able to see things with their own eyes, and with humans traveling is faster. When people put big metal objects in the air, there is always the risk of it falling out of space onto earth and causing harm to people.

When people don't make as many machines we are saving money! People spend a whole lot of money on the machines to make them more advanced. Which making them more smart you are making the price go up. So more money being used. So why not use people, you don't need a whole bunch of money to teach a human how to fly, take photos, and remember what they saw.

When using humans traveling will be much faster, shown in the text "Why Space Exploration Is A Job For Humans" it says "but the fact that they've traveled as far in eight years as the Apollo astronauts traveled in three days" That says a lot, so why waste all that time when we could be learning a lot more by just saying bye to the robots!

You might say that using robots is safer than using humans, but the truth is as long as the astronaut is trained well, then they are in no danger.

When exploring beyond earth we should use humans, it's not as expensive, time consuming, or dangerous.