Training Header Sheet with Change Log Form

Kentucky
Writing – Grade 8
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Manned or robotic space exploration
Practice Set 1

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People of Earth should continue to pursue manned exploration because even though technology has developed more smater overtme; it takes from humans learning about the expolrtions. Robotic technology can only tellus how to put people on mars not if there is any lving thing there. Humans can get ore knowledge from the moon about the planets to learn more about them before the expedition.Humans will tells us me than the developing robotic technology. Humans will be continuing the expedition in space instead of technology.

Robots or more aware developed technology would only be able to tell us how people can live on mars but not if there a living thing on there that we don't know about. "The only thing you learn by developing the technology to put people in space, is how to put people into space ,"Stated Steven Weinberg. He also stated,"Very often the case is made that putting peple into space pushes technology that's good for the earth...The kind of technological stmulus we would get from unmanned space exploration is much greater. Techonolgy does not work for everything the more you develop it wold be as expense of taking necessity for astronauts to be safe.

We may less smarter then robots but we can gather more infromation from the moon to learn about mars then sending technology straight to mars. John Logsdon States" The main goal is sending people beyond earth's orbit starting with the moon,eventually getting to Mars ,and beyond. The moon is the frst step.We don't know how to go to Mars yet." Debating Manned Moon Missions Says,"The moon is destination of value in it's own right, because there is lots we can do there tha will help us learn how to go to Mars. We may have less knowledge but we can use the moon to help us with out of the orbits places for space exploration.

Human can tell us more information then technoloy can when getting bak from an exploration. In "Why Space Exporatoins Is a Job for humans " States, Dr.ian A. Crawford thinks it should be otherwise.A professor of planetary sciences at Birkbeck College ,London,Crawford makes the case for human space explorations in a new paper entitled "dispelling the myth of robotic efficiency : Why humans space Exploration will tell us more about the Solar System han will robotic exploration alone," publishe recently n the journal Astronomy and Geophysics." This Staes in many ways how technology may be smarter but we can bring back more infromation.

In conclusion,Humans Will only be manned exploration in space in many ways . Three of those ways Robotics Only tell us how to put people in space,May know more but humans learn information from the moon, and we would bring more knowledge from studies and expditions of beyond earth's orbit. Say Us human Will only be the ones who stepfoot in space. No Technology can be smarter than us when it comes to exploration in space.

The use of manned exploration of space will help gather more valuable and higher samples of data. When there is a autonomous robot with artificail inteliigence, A.I for short. The A.I will be more costly and take longer in getting data that humans could do in mere weeks. The A.I, take longer, cost more and with Nasa's limited budget that will be a problem, and they have a limited decision making ability. The manned exploration missions though will inspire young students to have a degree or job in S.T.E.M. With that being said these next few paragraphs will explain all of those claims in depth.

First off, The Robots would be more costly than the humans because even though the robots can get more intellegint and efficient but they will have to get bigger and cost more. Nasa can not deal with the cost of the robots because they have a very limited budget and the extra cost of robots that are less efficient than humans is just idiotic. If Nasa happened to counter this problem by making smaller probes, Dr. Crawford 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" So therefore autonoumous robots will cost too much to use and manufacture fore efficient use.

Though, now with todays technology the astrounots will be very costly, and have very few locations to take data from. In the future hopefully we will have the technology to compensate for that. With the msnned exploration missions and such the amount of PhDs in the S.T.E.M system has sky rocketed. For example the amount of PhDs during the days of start of Apollo program went from, around 250 PhDs in math, 750 PhDs in Engineering, and 1700 PhDs in Physical Science. To 1100 PhDs in math, 2300 PhDs in Engineering, and around 4100 PhDs in Physical science at the end of the Apollo program. With that growth during manned missions during the Apollo program, if nasa had ,manned missions we might be able to exert the same growth nowadays. Many space exploration programs are designed to give kids a fascination in S.T.E.M. The prospect of being an astronauts gives the younger generations most likely a higher fascination in S.T.E.M.

Furthermore, with the manned exploration missions the training to make these astronauts will be costly and time consuming. Though if we found a way to make the gathering of data with our already expierience astronauts more efficient than we may have the time to compensate for the training. "The Mars rovers Spirit and Opportunity are fantstic things on mars, but the fact they've traveled as far in eight years as the Apollo astronauts have traveled in three days speaks volumes" as stated by Dr. Crawford. The rovers took eight years for what took Apollo astronauts three days with that equation 3120/3 wich is 1,040 days each 1 day the apollo astronaughts took. So if we have many more manned missions we can travel 1,040 times the amonunt the autonoumous rovers can travel per day.

So to sum all of this up, The manned missions may be more costly now in the long run we will have more scientist, more efficient travel and more money to spend on missions.

I think they should continue to pursue manned exploration by robots of space because people can die if the rocketship goes boom.

But humans are better at performing the type of geological fieldwork that makes planetary exploration scientifically valuable.

Robots are more intlligent and efficient to a certain point, but they won't get smaller and therefore cheaper.

Humans are faster and significantly more versatile than eventhe most advanced. Robots can carry the number of samples it can collect, and its ability to cover more ground.

Part of what makes us human is a thirst for exploration. This dirve for wanting to know what's out there is what put men on the moon, and will be what puts people on mars. People are what we need to explore, and discover. Yes, there are many things that can be done by robots but robots have so many limatations. Plus, people can do so much more. This thrist for knowlage can't be satisyed by just staring at lab results given to us by sum robot in the middle of nowhere. We need men and woman out there exploring, finding, and discovoring.

Space exploration is alredy routed deeply in our moddern culture and education syestems. The Appollo astronuts and missions were viary influential and played a big roll in our education of science and tecnology. Acording to "Benefits Stemming from Space Exploration" in the years following the Appollo program the number of PhDs for physical sciences, engineering, and mathematical science greatly increaced. This increace corasponds with the great knowlage gained by the people who maned the Appollo missions and the rocket program.

There are many risks in space. These dangers are beter suited for robots, which are more durable and more exspenable than people. Acording to "Why Space Exploration Is a Job for Humans", the only problem with robots are their size and lack of mobilaty. When a rover is gathering or testing samples it must be carying the right tools and equipment with it. After adding enough tools and gadets it no longer become reasanable to use. This large size and wight combined with the time it takes to send and recive comands from a driver on Earth just makes it realy hard to travel far or fast. The benafit of sending a human in this situation is their abilaty to better travle, colect material, and colect other imformation on their own.

In order to suvive a catasphic event, humans need to become a multi planetary speices. Acording to "Debating Manned Moon Missions" the exploration of planets isn't just for new knowledge, but to see of it could be a future home. If we are able to find a safe and sustainable world to live on we have more than dubled the odds of surviving as a spieces. This is something we need to do.

In concusion, there is a real need the keep sending people to space. Ranging from the exploration of worlds, learning new things, or saving future genoration it needs ot be done. Sure robots can do it, but not as well as us.

I think that we should continue to pursue manned exploration of space because the text states " when the Space Shuttle Atlantis rolled to a stop in July 2011, NASA bid farewell to the nation's symbol of manned spaceflight." the text also states " the Obama administration has scrapped NANS's plan to return humans to the moon by 2020, which was behind schesule because of techcal and budgetary problems." the text lastly states " The next giant leap, then, will be taken with robotic feet." Therefor I think that we should continue to pursue manned exploration of space.

I think that we should not continue to pursue manned exploration of space because the text says " The main goal is sending people beyond Earth's orbit starting with the moon, eventually getting to mars, and peehaps beyond." The text also says " The moon is the first step. We don't know how to get to mars yet." The text lastly states " that's the sort of thing that's tremendously usefu on Earth." therefor I think that we should not continue to pursue manned exploration of space.

I believe that manned missions to space shold continue, rather than interstellar missions using solely robots.. I believe in this fashion of space travel because of three important reasons: exploration, ability, and influence. Which are important because of several other reasons, especially a robot's inability to do such things.

First of all, exploration is necessary and vital tool to get to know how the universe works. Exploration to the moon, for example, will help us know how to get to mars, as said here, " The moon is a destination of value in its own right, because there is lots we can do there that will hel us learn how to get to Mars." What that quote means is that the moon is fundamental and valueable for the purpose of further space travel. The part thats human about it is processing what we find to make logical, human thuoughts and decisions based on such information; henceforth, getting us further into space. In turn, this benefits exploration.

Secondly, in terms of space travel, the ability man has is far greater than that of machine. As an example, speed and integrity will allow us to get farther at a higher pace with less damage; damage done to a human can be able to fixed by said human, unlike current robots. In the quote, "At the core of Crawford's argument is that human beings are much better at performing the type of geological fieldwork that makes planetay exploration scientifically valuable: they're faster and significantly more versatile than even the most advanced autonomous probes." This quote signifies how humans are swifter in movement, as well as the ability to dodge, duck, climb, and strafe in movement. All of this means that humans could gather the data we need far quicker, and more reliably than robots.

Finally, the influence manned missions has on younger audiences will promote their motivation to help out at some point in the future. "89 percent of the respondents also agreed that human spaceflight inspires younger generations to study science." That data gives sizeable evidence that eventually, when current and later younglings grow older, they are motivated and may help along with the study of sciences and data we collect from future missions. They may be put into position to be a man developing spacebound technology, or possibly a man out of orbit. This data allows us to know that human space travel allows future research and exoloration to increase; exponentially, even.

Currently, some would argue that the cost is to dire of a restraint for manned space missions, and the possibility of death can be a waste of resources; a gentleman has put that complaint into these words, "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." And these words, "...but so much of what you do has to be built aroud the necessity of keeping people safe and alive that science takes a second place." To combat the first quote, we can use man to get into space, and use that as an advantage to gather data for getting the money back thorugh investors. As for the second quote, we have the technology to keep people safe at this current time; on extraterrestrial figures, we are already safe if we time the duraton of the flight properly. In open space, there isnt much science to do, and thats when safety in most needed, unlike on a planet when we must set up camp and we can gather science immediately. This is why these claims are false, or at the least debatable.

All of this information proves that human spaceflight is significantly dominant to machine space travel comparatively. Exploration is greater with humans, as well as mobility and agility; the influence for younger generations is increased with human space exploration as well. While it may cost a significant amount of money, or resources, it is all fixed when the data is returned and investors are happy; the threat life is also fixed with the right technology and timing, and science does not even have to be in the backseat. It all lines up, human space explorations benefits outweigh those of machine travel.

First of all, the rover that was sent to Mars took eight years to move the same distance that took the Apollo astronauts only three day. So you could say that the humans are by far faster then the robots. For them to catch up to the speed of the humans would take alot of programming and they would have to be alot more smarter than they are already. It would also be easier if we didn't waste time on robots and take advantage of our selves and we would've already been there or we'd be very close.

Since the man missions to the moon are so expensive building and preparing although we already have people there makes us more likely to use robots in the future as they get smarter. Another reason is that the robots cost less because of how much less material we need for them compared to something that needs to fit humans on it.

Basiclally we are probably going to go to robots in the future nno matter what. I am for and against the use of robots involing space mission, but right now we know which way is the most efficiant.

I think that they should use the robote instead of the manned ships. I say that because in the text from why space exploration is a job for humans it says that if they do this with robots and not humans thathey can get more datathat they need then if human do it. They say this because of how a robot can collect more data the a human by having more samples at once then a human and hey can limit the things they need unlike they with humans. Another reason is in the text Debating manned moon missions it says that all of they manned moon missions are more expansive then the ones with robots. Also the text sya that in a comparison of the two we could have alot more robots in diffrent places on a panet than if we sent very few humans in one place of the planet. Also people say in the text that if we put peole in space then e can get technological stimulus, but we can get so muuc hmor by sending unmaned ones to space instead. Like for example more advanced robotics and ais that can do things in real time without people around to controll them. Finally it says that in comparison to that they onley technolagy that tou learn from putting people into space is more tech to put more people into space.

When many people pursue the astronaut career, why do you think they would want to follow said career? Would people want to become astronauts to program robots and watch them from afar, or would they want to land on other celestial beings and explore foreign planets? This essay will be explaining why those who should first travel space should be made of flesh and blood. To prove this thesis, this essay will show statistics for how humans are far more efficient than their robotic counterparts when sent on missions, why human space exploration may inspire more people to support and become a part of a space program, and back up the claim that space exploration is not only focused on science, but rather is also focused on figuring out how to create habitable spaces for humans on different planets.

To begin, human beings are far more efficient than their robotic counterparts when gathering otherwordly data and specimens. There are many different reasons for one to wish to go to space, but a common theme among astronauts and scientists is the goal of discovering and learning more about the known universe, beginning with the Moon and Mars. Dr. Ian A. Crawford of Birkbeck College, London, believes that "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". His arguements are created upon the foundation that humans are far better than robots when performing geological fieldwork and other tasks that make planetary exploration valuable to scientists. Humans are faster than most autonomous robots, to the point where the Apollo astronauts completed in three days just as much work as the Mars rovers have in eight years. This compelling fact displays just how much more efficient a human mission to other planets could be, if pursued.

Moving on, human space exploration makes it more likely for younger people to pursue an astronaut-related career. Whether people want to become an astronaut or the scientsts that stay on the ground, human space exploration has pursued more young people to pursue careers related to space. According to *Benefits Stemming from Space Exploration*, written by the *International Space Exploration Coordination Group*, "More than 2 million teachers and 43 million students from 49 countries have participated in student experiments and activities associated with the International Space Station (ISS.) In some cases, scientists enlisted the help of students to conduct their investigations aboard the ISS, and in other cases students designed space experiments themselves". This quote shows how students are getting involved with space, and helping further our knowledge about space by conducting experiments and working with the ISS. The ability to see other human beings exploring the frontier of space sparks interest in many people, especially those who are capable of going to space with the proper training and education, which could benefit the ISS and NASA with the possibiity of sending larger crews on missions, or having more scientists to help discover and improve the tactics that are used to reach space.

Finally, Space exploration is not only focused on science and research, but rather is also trying to discover ways for humans to live on other planets. When many people imagine what life may be like in the future, they imagine flying cars, ultra-advanced technology, and space colonies. Space exploration is meant to only provide one of those three possibilities, that being human space colonies. John Logsdon, the Director of Space Policy Institute at George Wahington University, says "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. We don't know how to go to Mars yet. 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". He continues by saying "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". These two quotes show that space exploration has been focused on finding out if other planets could become habitable, and robots would not be the best deciders when given that choice. It has already been shown in a previous paragraph that humans work more efficiently than robots when given a task on a foreign planet. If one of space exploration's main tasks is to figure out whether or not a planet could be made habitable, it should be up to human who are going to settle the planet, whether or not it is a probable idea.

Now to conclude, space exploration would be more efficient, effective, and valuable if humans were the main conductors of experiments and gathering of data. To back up this claim this essay has already proven that humans work far more efficiently when given a task on a foreign planet, human space exploration makes younger people more interested in pursuing an astronomical career, and space exploration is partially focused on space colonization (in which humans would be living in the aforementioned colonies). Space exploration was meant for humans to pursue, as it has far more benefits and results.If a comparison was made between the accomplishments of the Apollo missions and the space rovers in the time span that they both spent in space, the space rovers would be dwarved by the Apollo missions and their crew members who conducted the experiments.

The people of Earth should focus soley on robotic misions. Even though there are added beneifits from space travel it is wiser to stay focused on the robots. Currently it is better for humans to work with robots.

Space exploration is hard for humans as stated in the exerpt of "Why Space Exploration Is a Job for Humans". The United States finacal situation leaves NASA unable to make a rocket and to fuel it. Sending astronuts to space is dangerous, their lives are in danger as soon as they step foot on a rocket. The rocket could explode, oxygen supply cut off, run out of food, get stranded in space, burn to a crisp coming back into the atomsphere, or a medical problem. All of these are possible outcomes to going into space. If we use robots in space we would only be able to get a small amount of data from its findings.

Dr. Ian A. Crawford belives that it is better to send humans to space than robots. His arguement is, "Human beings are much better at performing the type of geological fieldwork that makes planetary exploration scientifically valuable." If we create artifical intellagence that is able to do that imagine how many lives wouldn't be in danger as much. Crawfordalso states, "You can make robots mor intellangant and efficant to a certian point, but they won't get smaller and therefore cheaper." Even if robots won't get smaller or cheaper they are still doing what they are programed to. Humans also can't det smaller, but we still send them to space.

Humans are inevitably going to die very soon since we are life on Earth. Our evolments in medicical and technical studys would be gone. So instead of leting it go to waste we could create enviromentaly friendly robots to contine that work and continue with our ourter space trevels. If our scientists sre able to create these types of robots the world could still have life after we die off. The robots could nurture the planet back to its original way. This would be the biggest advancement in technological history, but the humans are going to kill earth before we burn up from the sun being too close.

There are so many way Robots are more efficant than space travel if we are just able to improve there artifical intellagence and design.

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Writing – Grade 8
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Manned or robotic space exploration
Training Set

Practice Set 2

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There are many reasons why they should focus on what they do during the missions instead of pursuing manned exploration of space.People should focus on what they need and there are a lot of robots and other things that are needed for this.In the text it says,"Today, many 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 participated in student experiments and activities associated with the International Space Station (ISS)."This is why people need to focus more on missions than what they are doing themselves-even though their safety is important-,as in the way you do the mission matters, you either do it right or you do it wrong.

I think that the people should continue to pursue manned exploration.I think this because. First, the robots thing would take to much money. Second, That humans are pretty smart. Finally, Humans do better than robots. Continue to learn more of why I think this.

Having the robots are creating money issues. A reason is as financial Constants Threatening. Its pretty threatening because they are wasting money on robot that they dont need when humans are completely able to do the work. Another reason is the Obama administration has scrapped NASA's plan to return humans to the moon by 2020, which was behind scedudale because of Techencal and budgetary problems. Its basically stating that they had to cancel plans because of money issues. And my Last reason is its just really bad for bisness.

The next reason is that people are way more smart than some robots. A reason is that Human beings are much better at performing things than robots. I think this because humans can do a lot more than robots. My second reason is humans are way faster and they sighifically versal then most really good robots. I think that robots are not as strong like humans are. My final reason is Humans can lift things that needs lifting. Keep readin to hear the other side.

Although, some people think having robot are a good thing. One reason is that people can reprogram robots to be smarter. Its just if your that good at programing. Another reason is if you build the robot right then the robot could be rebuild to be faster. It depends if you are really good at building things like that. And my last reason is that Robots could be really helpful.

In conclusion, I think the people should continue to pusue manned.

Ever since the dawn of human space exploration in the 1960s we have been able to expand our knowledge of the starry darkness our world revolves in. Nearly sixty years later we have developed technology that has broken boundaries in the space community and sent people to places never thought of before. Although, some would like to discontinue the expansion of mans knowledge on his own but instead replace it with unmanned robotics. Earth should continue to pursue manned exploration of space due to its ability to provide us with timely first hand accounts of the world beyond.

Robotics have been essential in discovering what we cannot yet explore now due to limits such as ways to store oxygen for the amount of time spent travelling to places such as Mars or being able to regulate body temperatures in spinning infernos such as Mercury although, the amount of time it takes for a astronauts to reach these places is a fraction of the time it would take for a robot to reach them. According to Dr. Ian A. Crawford "[Mars rovers] Spirit and Oppurtunity are fantastic things on Mars, but the fact that they've traveled as far in eight years as the Appollo astronauts traveled in three days speaks volumes." To be put in a scenario again such as the space race, we would not be able to win with robotics due to protracted periods of time such as eight years to reach the places man could reach in as little as three days. Manned missions are more efficient and effective when it comes to the amount of time to reach their destination.

Another benefit to manned space exploration is the inspiration it gives to developing minds to pursue a career in the sciences. In the passage "Benefits Stemming from Space Exploration" it states that "A 2009 survey found that fifty percent of the internationally renowned scientists who published in the prestigous journal *Nature* during the previous three years had been inspired by Appollo to become scientists; 89 percent of the respondents also agreed that human spaceflight inspires younger generations to study science." A now proven advantage to manned space flight is it's oppurtunity to expand the science field of work due to it being able to inspire our youth to want to achieve the skill to become astronauts or pursue a PhD in Physical sciences which could help issues we face now such as shortages in people to explore space first hand. Manned missions have now open the door for more oppurtunities in the work force and closed the door of doubts about the shortage of people working in the sciences.

Although, you could argue that manned missions are putting a damper on our nations economy due to the cost of putting someone in space. According to Cosmologist Steven Weinberg "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." However, without manned missions, we have no first hand knowledge of future homes on planets other than Earth. According to the Director of Space Policy Institute John Logsdon "It[the purpose of manned missions] 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...." Say for instance there is a massive pandemic that infects most of life on Earth and humans have to reloctate to another planet, would you rather wait years for a rover to identify a safe planet or a manned mission to identify within days a place for us to call our new home? Manned missions open oppurtunities for us to identify furure homes we could inhabit along with Earth.

Without manned missions our knowledge of the abyss beyond we call our universe, we would be veiled to places such as future homes and have no knowledge of the darkness that surrounds us. Earth should continue manned exploration of space due to it's ability to provide us with timely first hand accounts of the world beyond.

We should continue to pursue manned exploration of space. Humans are able to communicate and talk about what they have discovered. We are able to understand what discoveries they made. If we focused only on robotic missions, we would not be able to get the same details and information from machines that we get by using humans. In the article,"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 the type of geological fieldwork that makes planetery exploration scientificlly valuable: they're faster and significantly more versatile that even the most advanced autonomous probes." The author goes into further detail and states,"[Mars rovers] Spirit and Oppurtunity 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." This evidence supports that man is faster and stonger than any robot. Also, something that we have been trying to figure out for years is if we are able to live on other planets. But, in order to do this we need humans. Humans will be the ones living on these planets, such as Mars, and not the robots. In the article, "Debating Manned Moon Missions," it states,"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 someting worthwhile." If we ever want to make progress in this area, we need the assistance of advanced humans. Not only do they have physical power, but they also have the power of the mind. These astrounauts can feel things and describe them in greater detail. They can give stories about what their expeditions were like. Robots are not capable of pursuing this task right now. Overall, we should continue to pursue manned exploration of space.

hi today in my essay i will be speaking on the arguement of if human exploration outside earths orbit is good or bad for our planets evolution. i believe that manned explorations are far worse than robotic procedures. my reasons for this is it betters our tecnology stamina, science isnt the main proirity when they must worry about peoples safety first, it is alot cheaper to just use tecnology to explain the unknown and lastly robots tend to be more reiable and have better evidence.

my first reason as to why i think robotics should be used for exploring what hasnt been discovered is that building those mars rovers and robots to go on the moon help us learn what is best for outside earths orbits. say if we cant use humans for discovering the planets and life form because it might get to dangerous, then we would have no other way of figuring out what goes on up there. our only option would be to use enginerring but we wouldnt have anything tested out to know what works best, so it would be best for the long run to just use rovers.

my second resoning is that when u have people on diffrent planets and relying on oxegyn and such it is alot more risky, peoples lives are at danger. peoples well being comes before science therefore u have to put science and all data thats incoming on the backburner if someone life is at stake, but on the other hand with machinery there is no human inside the robot, there isnt any lifes at stake because the people controlling it are safe down at earth. the only thing at risk is when using space tecnology is osme metal and a coupe wrse, not a humans life.

my third reason is that it is alot cheaper in the long run. although you do have to pay for the materials and all the tecnology that goes into the rover, it is still cheaper than paying the astronauts, builing the space ship, including all the food and materials the astronauts will need to survive. money obviously isnt the most important thing here, it is safety and the data we collect but the whole money situation does help people vote towards you, people loveee cheap stuff.

my forth and very last reason as to why i have chose this side of the arguement is that often machanics are more reliable. they tend to have more accurate statistics and have better evidence, other than she said he said. the people that they would send up have no real evidenc except for pitures takes for when they were up there,and if something were to happen to an astronaut or one of their cameras the any and all evidence would be gone. how do we know they dont just go up there and tell us what we want to hear? with rovers you get to watch it all live from the station down on earth, so what you see is what is actually going on up there.

in conclusion robotic explorations are better than manned discoveries because it gives us better tecnology stamina, sciece cant when then main priority when peopes lives are at stake, it is alot cheaper to use rovers and finally space craft tends to be more reliable. i hope you enjoyed my essay. thank you for your time.

We should continue to pursue manned exploration on space. We can study more things and find things out faster than we could if we used robots to explore space. Also if we used humans to explore space it has been proven that it encourages more kids to be apart of the (STEM) field. But their are positives of using robots instead of humans. People would be better at getting data than robots would on planets.

Many people believe that if we use more robotic spacecrafts that they will serve as more affective explorer of planets. But they have gotten it all wrong, if we used humans for exploration we would explore planets faster than a robot would. As stated in paragraph 3 of, "Why Space Is a Job for Humans","... 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." As it was stated in paragraph 3 man can cover more ground than a robot caould in eight years in just three days. Using humans for space explorations has more positive effects than just this.

Applying more people to go to space than robots has a way to inspire kids to become apart of the (STEM) ,science, technology, engineering and mathamatics, job crew. 89 percent of respondents from a article called "Nature" said that a artice in Nature called Apollo have agreed that human spaceflight has inspired kids to study science. As stated in paragraph 2 of, "Benefits Stemming from Space Exploration" it states,"... 89 percent of the respondents also agreed that human spaceflight inspires youger generations to study science." Some of the lessons from Apollo are saying that having a visible space exploration programme is a important factor in getting kids to pusue the (STEM) field. Robots do have some advantages that are better than what humans have.

People may be more expensive to travel to the moon than a rover would. But we can get more knowledge and understanding if we use people to explore outer space and planets. Even though robots have a better intelligence than humans, robots stick to the mission that they have been set to do while humans stick to the mission and try to find out more knowledge for us. People also argue that if they were more artificial intelligence that the capacity for robots to make important decisions would increae efficiency, this may be true, but if we do that than robots would cost more than humans would to go to space wich would make us lose lots of money. Humans are more efficient at finding new things and are cheaper than robots are going to outerspace.

In conclusion people are better than robots at going to outerspace. We are more inspirational than robots are. Another reason is we would be more efficient at collecting data on planets than robots would. Also we are better equipped for missions than robots are. We also have a better knowledge of what to look for. these are the reasons people are better to go into outer space than robots are.

NASA sent Neil Armstrong and Buzz Aldrin to the moon through the Apollo program. This was an extreme human milestone of epic proportions. However, in todays technical age, sending humans to space is not sustainable. NASA and other space programs around the world need to focus solely on robotic missions to support research in their field.

Robots are simply more efficient than humans in the hostile environment that we call outer space. Probes and rovers are specially designed for the environment that they are headed too. For example, Spirit and Opportunity, both Mars rovers, were designed to travel to mars and take measurements from the soil, to determine if there was water or signs of life. They had sensors to analyze climate and these massive dust storms that would happen on Mars. Humans wouldn't have been able to take these measurements safely or as accurately. These rovers have been collecting data from Mars for years, but any manned missions would have to be returned to Earth relatively quickly. Rovers can stay at their posts for a significant amount of time, with our current rovers already providing vastly important information back to us. Missions with robots have allowed us to determine with a reasonable degree of certainty that they provide a distinct advantage over manned missions. Robots should be used for our space exploration because of their efficiency and accuaracy.

A huge issue with manned missions is their cargo: us. Humans require so much to stay alive and safe. As Steven Weinberg says "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." Manned missions must be planned with food and water. It is incredibly expensive to send even the slightest amount of anything into space. If we were to send someone to Mars, we would have to accomodate for the essentials: food, water, and a way to build them a suitable habitat to protect them from the dangerous environment. This leads to more weight, which leads to increased price of the already invaluable rocket fuel being used to send said humans to space. One must also consider what happens when the astronauts get to their location. Human error is a major factor in every experiment, regardless of its purpose. Human error can completely invalidate the results of any extraterrestrial observations or experiments. Robots specifically programmed for each task would be able to complete each endeavor consistently and flawlessly. Humans require sleep, and as such can only work so much each day. This reduces the opportunity for scientific study. In stark contrast, robots are able to function around the clock thanks to developments in solar energy that allow them to draw power from the sun, and can be supplemented by onboard batteries. Robots are much more versatile than humans, and should be used regularly as a result of this productiveness.

Humans are expensive. It costs a lot of money to build a stand alone rocket. NASA recieves a huge budget of billions of dollars from the government each year, and during the Apollo missions, the construction of these garguantuan machines tore through that budget. As I mentioned earlier, rocket fuel is incredibly expensive as well. Rovers do cost millions of dollars to create but in the long run they pay for themselves many times over. To begin, rovers will weigh less than humans and all their cargo will weigh. This cargo, including food, water, habitats, oxygen, etc. will not be needed for robots, thereby reducing the cost significantly. There also has to be a return trip for manned spaceflights. If we land a man on Mars, we need a way to get him home. Rovers do not need such accomodations and can stay at their location for much longer. The cost a manned spaceflight far exceeds the price of a robotic mission, making robotic missions the best option from a strictly financial point of view.

There are several prominent arguments that advocate for the use of manned missions in the stead of robots. Dr. Ian Crawford says that "people who argue for robotic exploration argue for more artificial intelligence, the capacity for robots to make complex decisions that somehow leads to increased efficiency." He goes on to say that this is unjustifiable due to miniaturization which leads to a decrease in the amount of tasks a robot can complete. I argue that this is not the case. Robots are not designed to act on their own. They can be programmed to act based on an outside factor without needing to be specifically told by the engineers who built them, but they are there for one purpose. The Parker Solar Probe was built specifcally to assess the surface of the sun and the solar winds it emitted. It took these measurements as the information became available to it, but it was not acting by itself. We don't send rovers and probes to space equipped with whatever instruments we could and then wait to see what they send back. Each machine is designed with a specific task already in mind to accomplish. The Juno spacecraft didn't just have a camera and happened to take pictures of the gaseous planets. That was its job, its sole purpose, and it accomplished it impeccably. it was able to relay tons of information back to its engineers at no risk to human life whatsoever, and for such a decreased price than it would have been to send humans. How would we have sent humans all the way to Jupiter and Neptune, and have them return safely? The short answer is we wouldn't because we don't have that technology yet. In the meantime, robotic mission are available, and are currently our best option.

In summation, robots provide a massive advantage over manned exploration across the board. Due to their specialized nature, and the human drawbacks inherent in manned missions, robotic missions are the best option for our future endeavors regarding space exploration. The people of Earth should focus strictly on robotic missions to further our understanding and exploration of space.

I think that we should keep human exploration because Dr.ian A.crawford thinks it should be otherwise.A professor of planetary sciences at birkbeck college ,london,crawford makes the case for human space exploration in a new paper entitled dispelling the myth of robotic efficiency:why human space exploration will tell us more about the solar system than will robotic exploration alone published recently in the journal astronomy and geophysics.it talks about how if the goal of space travel is to expand our knowledge of the universe exploration will be more effective when carried out bt astronauts.but some people argue for robotic exploration argue for move artificial intelligence allows robots to make more complex decisions and makes them more efficient.but I argue that robot are not as smart as humans because robots don't have on the spot thinking.that is why I say that they should keep human exploration.

space exporaltion is a big deal, mostly because of NASA, and it allows us to understand where we came from and the universe. recently NASA have been deciding on on whether or not to have manned missions or unmanned missions. manned missions are clearly the best choice, because humans can tell us more that robots, and it influences more people to become astronauts.

manned missions can tell us more than robots can. according to 'why space exploration is a job for humans',"at the core of crawford's arguement is that human beings are much better at performing geological fieldwork that makes planetary exploration scientifically valuable: they're faster and significantly more versatile than even the most advanced autonomous probes. '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" (paragraph 3) although robots can think more complex-like, humans are able to understand the greater meaning of alot of things. according to 'why space exploration is a job for humans',"you can make robots more intelligent and efficient to a certain point, but they won't get smaller and therefore cheaper.' with minaturization, he explains, comes a depletion in the number of scientific instruments a probe can carry" humans can carry more and more things without losing any intruments therefore rendering robots useless compared to humans. and although robots can last longer and go a bit farther than humans doesent mean that humans are nothing. finally, according to 'why space exploration is a job for humans',"spirit and opportunity are fantastic things on mars, but the fact that they've traveled as far in eight years as the apollo astronaughts traveled in three days speaks volumes." as provided, humans can do much much more than one would think.

whenever teachers and students talk about space, it usually sparks a conversation and a big dream. according to 'benefits stemming from space exploration',"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 appolo to become scientists; 89 percent of the respondents also agreed that human spaceflight inspires younger generations to study science." space travel isnt only beneficial to technology, its salutary for our society as well. according to 'benefits stemming from space exploration',"having a visible space exploration programme is important in encouraging young people to pursue science, technology, engineering, and mathematics (STEM) fields." because humans are now able to go into space, more and more people will be enlivened to pursue their dreams of becoming an astronaut. lastly, according to 'benefits stemming from space exploration',"more than 2 million teachers and 43 million students from 49 countries have participated in student experiments and activities associated with the international space station (ISS)" student and teachers are now more likely to become inspired from the fact that even humans can go into space.

as described, humas can do just as much, and if not more, than robots can because of the way that they can cover more ground, carry more supplies, etc. now NASA should make the right decision to imploy more astronauts and put them in space.

People on earth should continue to pursue manned exploration of space.

Humans can get and give more information from space. In the passage "Why Spae Exploration Is a Job for humans" it says, "...Human Space exploration will tell us more about the solar system that will robotic exploration alone." Also,Human are better in the field working wise when exploaring. In the passage it says,"...Human beings are much better at performing the type of geological fieldwork that makes plnetary exploration scientifically valuable..."

I would prove that we should focus soley on robotic missions but there is many reasons why humans should continiue to pursue the exploration of space.

The quotes are showing that humans are a better advantage when it comes to exploring in space and using robotic missions for exploration is not a good idea and humans should continue to pursue the exploration of space and also robotic missions are not qualified enough to find the information that we need to know about space and we need to find more information about the planets so that we can explore more areas and humans can't get to some areas and that would be the only that would be helpful with robotic missions is that the technology can get to places that human scientists on the spaceships can't get to.

To sum everything up, we should continue to pursue manned exploration of space.