

# Challenge 1

**Astronaut Victor has been at the HALO outpost on the moon and will be there for a very long time before returning home to Earth. The infrequent resupply missions and the two-week lunar nights make his time there challenging. Victor is missing the pick-me-up that he gets back on earth with his morning coffee. Victor is also suffering from headaches and he just used up the last tablet of painkillers. He would also like to see something other than space habitation white or moon grey.**

# Challenge 2

**Carli has been on the lunar space Station Gateway supporting the astronauts living on the moon's surface at HALO. She is getting tired of the pre-packaged space food that has been made on earth. The controlled environment of the space station is small and dry and foods just don't taste they way they do on Earth. There is a limited water supply on the Gateway. Carlie has many jobs to do every day. What Carli really would love is something to eat that is full of flavor, fresh and crispy and different from the same food she has been eating day after day.**

# Challenge 3

**Andre has been on Mars for a long time and is not feeling great. He is missing Friday Games Night where he would have cheese and crackers. His mind is foggy and is having a hard time staying awake. Using AI and biometric sensors doctors on Earth has told Andre that eating more protein and iron will help him. There are many plants in the Martian Garden knowing which one to grow and eat might help.**



# Challenge 4

**Charlene is the joker on board Mars Base 1 and loves cooking, hanging out with the other astronauts and having fun. She is responsible for looking after the buildings and robots. In a Martian dust storm some other robots broke, and one walls of the mars farm was damaged and needs immediate repairs but supplies are running short!**

# **CHALLENGE**

**Design a plant  
that produces  
tasty food and  
medicine.**

# **CHALLENGE**

**Design a plant  
that can be  
used for  
building  
materials.**



# **CHALLENGE**

**Design a plant  
that is compact  
but produces  
high yield.**

# **CHALLENGE**

**Design a plant  
that provides  
protein and  
grows quickly.**



# **CHALLENGE**

**Design a plant  
that can be  
used to make  
cheese.**

# **CHALLENGE**

**Design a way to  
supercharge  
growth.**

# **CHALLENGE**

**Design a plant  
that  
helps with  
mental and  
physical well  
being.**



# **CHALLENGE**

**Design a plant  
for future food.**

