



# Astronaut Veach Day STEM Challenge



- Students learn the engineering design process and demonstrate their GRIT in project based learning
- Classroom sets (30 each) of: mini programmable robot, line tracer robot, wind turbine kit, solar grasshopper (and master templates for paper roller coaster project)

- Projects demonstrated at the Astronaut Lacy Veach Day, October 27, 2018

• <http://www.spacegrant.hawaii.edu/Day-of-discovery/>

## Mini programmable robot

- Program the robot to do create art
- Program the robot to move to music
- Program the robot to apply to a real world challenge

## Line tracer mini robot

- Design a complex track for the line tracing robot to follow

## Paper roller coaster

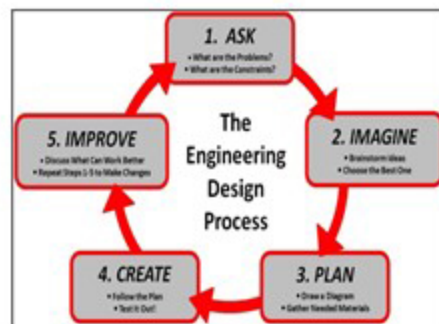
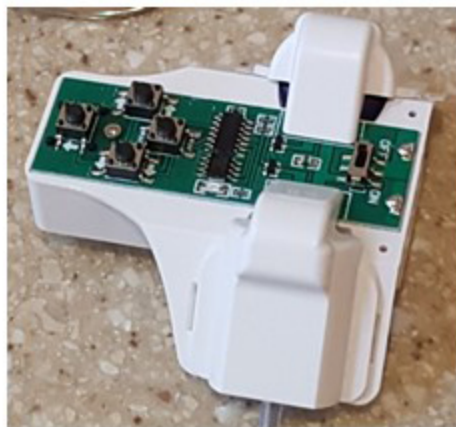
- Design, construct a model of a new roller coaster for Hawaii

## Wind turbine

- Design, construct wind turbine to light the LED built using recyclable materials

## Solar grasshopper

- Test lights vs. efficiency of movement
- Re design to have it a specific direction



\*8 classroom sets available/1 per school; for further information, contact Art Kimura, [art@hiqp.hawaii.edu](mailto:art@hiqp.hawaii.edu), 9876798