

CTE Camp Updates

June 24, 2020

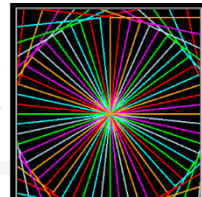
FAN CARS ZIPPED AROUND ROOMS AND CAMPERS CODED IN SCRATCH AND PYTHON

Yesterday was all about balloon cars and today was about fan cars. Campers explored how to build electric circuits to power their cars. They took off the balloon jets they used yesterday and replaced them with a small electric motor. They pressed a propeller onto the motor and connected it to a battery. For many, they quickly realized they needed to press the propeller on more firmly as it went flying off the motor and bouncing around the room. They eventually got the motor, battery, and wires all attached to the car and turned it on. These cars took off like rockets! Most tested ended when the car crashed into the far wall... or chair... or sibling.

After the basic fan car was done and had crashed a few times, campers started looking for ways to improve their designs. One found an old toy with a similar motor and fan blade

attached. He removed it and added it to his fan car to see if it would go faster with two motors. Many decided an on/off switch would be most useful and one even worked to have a string

```
main.py  saved
1 import turtle
2
3 turtle.speed(0)
4 turtle.bgcolor("black")
5
6 for i in range(5):
7     for colors in ["red", "cyan", "lime", "lightblue", "magenta",
8                 "orange"]:
9         turtle.color(colors)
10        turtle.pensize(3)
11        turtle.lt(12)
12        for i in range(4):
13            turtle.fd(200)
14            turtle.lt(90)
```



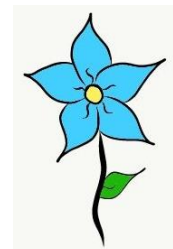
Python code to generate a spirograph

connected to the switch so when the car drove far enough away, it would automatically shut itself off.

But the day wasn't all about cars. We also worked on designs for the laser cutter and a bit of coding. You can see the spirograph code one camper

To see videos and additional photos of what the campers created today, please find us on Twitter and Instagram @RentonCTE

wrote in Python. It draws dozens of squares of different colors while rotating 12 degrees between each one. Students also worked on games and stories in Scratch. The biggest change of the day was campers really starting to think about their personal projects which we'll work on the rest of the week. Many are interested in designing something to be etched into wood or plexiglass and a few designs started to come in. Below is one that we're excited to burn into wood. They are still exploring Adobe Draw and other tools to make the perfect design. I'm excited to see what they produce.



Flower design for the laser cutter