# HOW IT WORKS: CNC MILLS





### 1a. Process

- Mill: A rotary tool to remove material from a workpiece by means of moving the part along the X, Y, or Z axis.
- CNC = computer numerical controller - Code: A CNC mill with automatically mill the part more precisely and quickly than a human could.





### 1b. Usefulness

Simple parts can be made quickly and more precisely than a manual mill
 Complex parts can be machined out of a single workpiece instead of having to use multiple manufacturing processes





### 3. Getting Access

Be a mechanical engineer trained in machine shop practices
 Know a friend who is certified and ask them to do it for you



### 2. Locations on Campus <

2. Formula SAE/ICE Garage (Below Gesling Stadium)



### 1c. Limitations

- Drill bit size and prototype size Cannot bore square-edged holes in the
- · Expensive · Requires background engineering, and programs (creo parametric, solid works, etc.)







What is a CNC Mill?





3. Getting Access

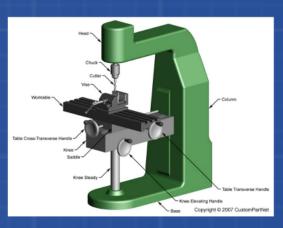
2. Locations on Campus

1. Mechanical Engineering

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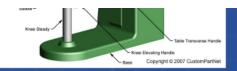






## 1b. Usefulness





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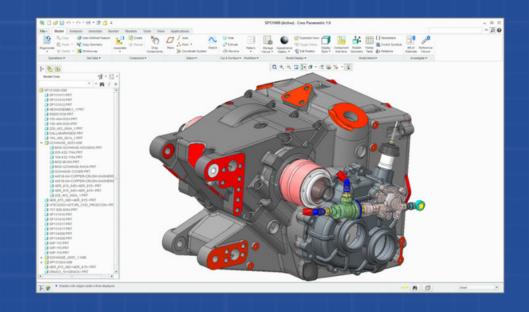






## 1c. Limitations

- · Drill bit size and prototype size
- Cannot bore square-edged holes in the material
- Expensive
- Requires background in mathematics, engineering, and programs (creo parametric, solid works, etc.)





# 2. Locations on Campus

1. Mechanical Engineering Machine Shop (HH C-109)

2. Formula
SAE/ICE Garage
(Below Gesling
Stadium)





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