

Industry Needs

- Before PCB drilling and routing machines, making PCBs was hard and slow. People drilled holes by hand and cut lines with tools like saws and chisels. This was slow and easy to mess up, which could break the PCB.
- PCB drilling and routing machines use computers to drill holes and cut lines very precisely. This makes PCBs faster and more accurate. These machines are now very important for making PCBs.
- As electronics get more complicated, the need for precise PCB manufacturing will grow, so PCB drilling and routing machines will become even more important.

OUTCOME

- Final report documenting design, fabrication, and testing.
- 20-minute presentation highlighting key features and benefits.
- Generic simulation of virtual prototypes showcasing the machine's capabilities.
- Working model of the automatic PCB drilling machine.
- 3-minute video demonstrating the machine's operation and advantages.