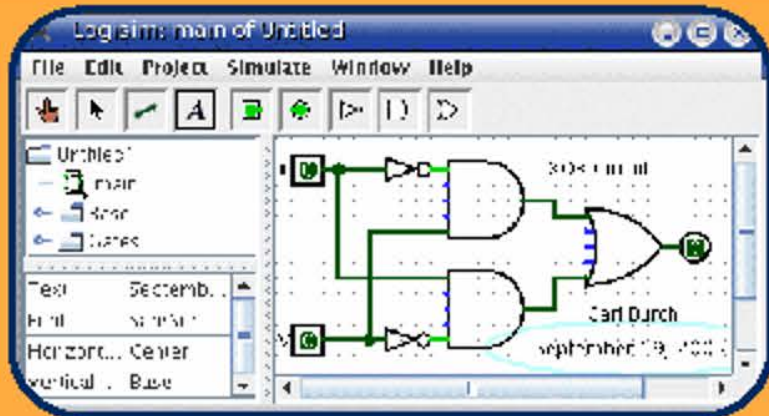
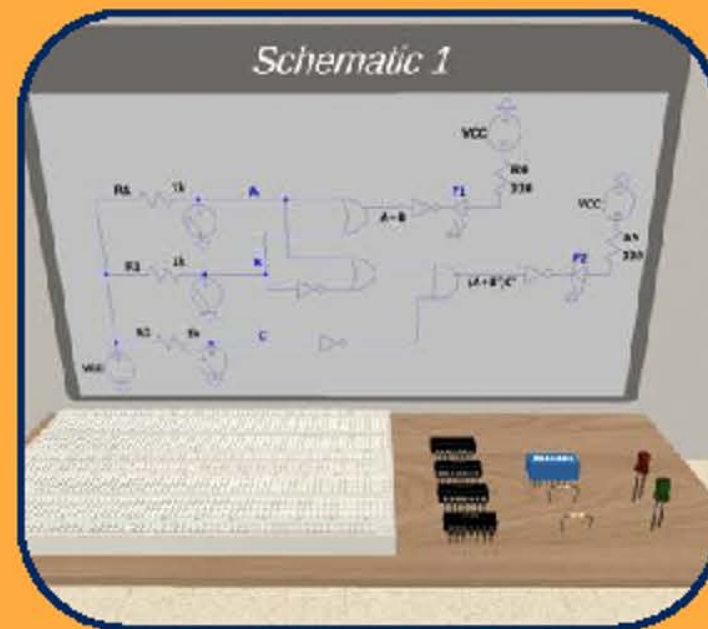




Digital Logic Labs are currently run **in-person** or **remote**. In-person labs provide **hands-on** hardware experience but **require** physical setup and access.



Asynchronous labs are more **accessible** but **limit** authentic, hands-on practice and **timely** feedback.



Approach: We built a **VR-based** lab that bridges these gaps, combining the **authenticity** of physical labs with the **accessibility** of remote learning.

Impact: Expand into ECE summer courses, giving students immersive **hands-on** practice from home.

Extend **beyond** digital logic to minimize **e-waste** and promote **hardware equity**.

Model complex, **high-risk** systems **without** physical danger or cost.

Capture tailored data: time per component, error types, hint usage, logged directly into a database.

Project Achievements:

- ✓ Realistic components
- ✓ Real-time tailored help
- ✓ Accurate wiring behavior

Live Demo Screenshots

