DIYauto

Make. Inspire. Automatically.

What is DIYauto?

DIYauto is a educational platform that streamlines curriculum development and aggregates instruction manuals. With a focus on digital and physical engineering projects (à la do-it-yourself creations), DIYauto's artificial intelligence-based computer program generates comprehensive instruction manuals from video and audio input provided by a human teacher. These manuals are available online for replication by anyone, anytime.

How does it work?

If you are interested in building a project, visit diy.auto/create. You will download the DIYauto computer client, which includes DIYauto Create and DIYauto Edit. Open the DIYauto Create and select "Digital Project" or "Physical Project." For a physical project, you must connect a camera.

Click "Start Creating." (If you are making a physical project, be sure that your camera is recording.) All you have to do is complete your project and provide passing oral instructions along the way! If you ever need to take a break, click "Pause." When you are done, click "Finished."

Our program will synthesize the recording (screen recording for a digital project and video recording for a physical project) and audio into a detailed instruction manual on how to replicate the process. However, we recognize that our program's output may not exactly match your intentions. We give you an opportunity to edit the AI-generated instruction manual through a built-in program called DIYauto Edit. When you are finished on DIYauto Edit, you may click "Publish" to make your project public on diy.auto/projects.

Congratulations, your creation is now visible online! Site visitors, who can register for free, are able to view your project on diy.auto/projects. Each time a registered site visitor completes your project, you will earn $0.50. Because we believe access to these projects should be free, we pay you solely through advertisement revenue.

Why should I care?

DIYauto keeps in mind two pervasive issues: difficulty of curriculum development, as well as lack of access and meaning in education.

The first goal, streamlining curriculum development, is mainly accomplished through DIYauto Create, which automates the tedious process of writing coherent instructions. However, because we also want to empower teachers, we've built DIYauto Edit, which gives teachers the ability to modify their instructions. We hope to leverage technology to eliminate an unnecessarily burdensome part of educating others, not to eliminate teachers.

Second, DIYauto weaves in equity and meaning to learning. The library of polished instruction manuals on diy.auto/projects is expansive, sortable by difficulty and by materials, and—most importantly—free. (At the moment, we recognize that there is a cost barrier, in materials and equipment, for some projects. We are committed to resolving this and making DIYauto as accessible as possible.) The DIYauto team—of humans—has curated over 100 different plans for customized learning. Each of these allows for self-paced instruction, and every plan provides flexibility to the student. A central goal of DIYauto is to give students control over their own learning, with the minimal amount of structure necessary to push them in a productive direction. Just as the educator Paulo Freire once advocated, we believe that a student's education is most fulfilling when they are involved in the co-creation of their knowledge. We also hope that students can choose projects that help them find meaning in their education—and beyond.

In our view, DIYauto is beautifully cyclical: Once learners on the site develop the skills to build projects, they are well-equipped to begin producing instruction manuals for their novel creations. Though we do not expect DIYauto to transform education, we do believe it allows for unprecedented ease and agency, for teachers and learners alike.