

I'm not a robot



Playing with Algodoo is engaging and fun. With simple draw-and-click editing you can build and interact with physical objects exploring the real world. Build and play with rigid bodies, fluids, chains, gears, gravity, friction, springs, hinges, etc. Interact by click and drag, tilt and shake. Use color traces, graphs, forces, etc. for enhanced visualization. Download for free! www.algodoo.com Algodoo is an easy-to-use drawing tool empowered by physics simulations. Everything you draw can come to life! Making use of the same core technology as in AGX Dynamics, Algodoo is designed and developed to be both educational and entertaining. As the number one software for creating interactive physics simulations, Algodoo is the perfect tool for learning, exploring, experimenting and laboring with real physics. The Algodoo software is designed and optimized for future classroom solutions like 1:1 computing, interactive whiteboard systems and other modern technology. Also including content like lesson plans, pre-made scenes and tutorials, making Algodoo both easy to learn and use. Algodoo in research There are more than 700 papers published about Algodoo. BibTeX @article{bodin2017algodoo,title = {Algodoo: A tool for encouraging creativity in physics teaching and learning},author = {Bor Gregoric and Madelen Bodin},url = { ,doi = {10.1119/1.4972493},year = {2017},date = {2017-01-01},journal = {The Physics Teacher},volume = {55},number = {1},pages = {25-28},publisher = {American Association of Physics Teachers},abstract = {Algodoo () is a digital sandbox for physics 2D simulations. It allows students and teachers to easily create simulated "scenes" and explore physics through a user-friendly and visually attractive interface. In this paper, we present different ways in which students and teachers can use Algodoo to visualize and solve physics problems, investigate phenomena and processes, and engage in out-of-school activities and projects. Algodoo, with its approachable interface, inhabits a middle ground between computer games and "serious" computer modeling. It is suitable as an entry-level modeling tool for students of all ages and can facilitate discussions about the role of computer modeling in physics.},keywords = {Algodoo},pubstate = {published},tpubtype = {article}} Algodoo is FREE for Windows and Mac, and also available in the Apple App Store for iPad and Mac. Join millions of users in the community and explore the over 150,000 simulation scenes that have been shared. Any Questions Regarding Algodoo, please Visit Algodoo website at www.algodoo.com Making Marble Races look better What is Scripting?[] Scripting is when you type code into a program to do something you can't do without it or to make a objective easier. Is Scripting hard?[] at first it may look hard to understand but after looking into the code a little more it's easier to start Scripting, but it's difficult to master. [] When you go into Algodoo make an object, then double/right click the object, find the "Script Menu" tab on the object's properties, then after that if you want stuff happen use this legend: Make something happen once a Marble touches it - OnCollide Make something happen once the object is clicked by the mouse - OnClick Make something happen once the object gets destroyed - OnDie Make something happen once the object touches a laser - onHitByLaser There are LOTS more than this but these are the simple ones How to learn[] I won't tell you codes right away, you can find lots of tutorials on YouTube! Algodoo gives you the opportunity to play with physics. Use your own hands and simple drawing tools to design, construct and explore the world of physics. Sounds like an interesting idea? Algodoo is that program. If you want to support the development of Algodoo, use the Donate button. "It's so simple to us." ===== We can make anything and want it to do whatever we need, right? " Read more -> ===== To get started with Algodoo, we want you to spend some time learning about the software and its content. Before starting our training program, please make sure you have Algodoo installed and activated on your computer. ===== Our goal is to help you become a confident Algodoo user in just three sessions. We'll guide you through each step of the way. In Session 1, we'll get you familiar with Algodoo by learning how to create a basic scene and explore its various tools. We'll also teach you how to master the magic Sketch tool. ===== To customize Algodoo for your needs, start by running the setup guide and explore more settings in the top menu. You can also open built-in tutorials by clicking on the Tutorial button or using the ?-mark in the top menu. Start with the "Crash course" tutorial to create your first scene. ===== In Session 2, we'll dive deeper into creating educational scenes with Algodoo. We'll teach you how to work with water and density, friction, and more through interactive lesson tutorials. Take your time to read and follow the guides to learn new skills. ===== Finally, in Session 3, we'll explore the world of Algodoo Lessons. This library offers over 60 teacher-created lessons covering various areas of the curriculum. You can search for lessons by language, target group, category, or discipline and create your own account to make and share content with others. ===== Looking for lessons on forces and physics? Try searching with keywords like force, friction, energy, optics, and more. Browse through our lesson library and get familiar with its structure. Our lessons are divided into three main sections: general info, attached scenes to download and run, and step-by-step guides. To start, search for a specific lesson or browse through the list. Read the lesson information to understand the content. Then, open the attached scene or follow the guide to design your own scene. Take time to reflect on the lesson material and think about how you can apply it. If you want to create and share your own lessons, you'll need a personal account. Start by clicking the "New Lesson" button and entering the necessary fields. Create a new scene by clicking the button again. Fill in the general info, attach a scene, add steps, and save as a draft. You can come back to it later. You can find drafts by clicking on the icon, then open and edit your lesson again. If you're ready to publish, click the "Publish" button or save as a draft. Feel free to explore more options in our library, such as translating lessons into your preferred language. Let's talk about Algodoo Algodoo is a digital sandbox for physics 2D. We chose it because of its user-friendly interface and ability to help students create and explore physics concepts. Registration To access the full resources on Algodoo, you'll need to register on our site. Follow these steps: 1. Complete all required fields. 2. Create a username that's easy to remember, but not too long or complicated. 3. Choose a password that's unique to this site and not used elsewhere. 4. Enter accurate information to recover your account if needed. 5. Read and agree to our Terms and Conditions. 6. Confirm you won't create multiple accounts. Presentation of the basic Algodoo To use Algodoo, first install it on your computer by visiting our download page. After launching the application, you'll see a start page with three main areas: Setup, Tutorials, and Lessons. From here, you can customize settings or explore tutorials to learn more about the application, tutorials and lessons available in Algodoo ===== The three work areas of Algodoo share a virtual tool palette, where objects are created, moved, and properties associated with aggregation, texture, motion, or interaction state are changed. ===== the sketch tool is unique to Algodoo and allows the creation of different forms of objects or links. The Sketch tool tutorial will be run for more information on this. ===== at the bottom of the main interface of Algodoo are the simulation control tools: start, pause, enabling or disabling the gravity force, activating or deactivating the friction force. ===== tasks and work steps - direct applicative activity 1. Run the Algodoo application: a. In the Start menu, Programs / All Programs, the Algodoo folder, click Algodoo. b. Identify the items described in the previous section on the open interface. ===== 2. We want to highlight the functionality of each integrated tool in Algodoo a. Activate the Tutorials work area by tapping the icon b. Open a new "scene" to be able to execute the tasks proposed in the tutorial: File- New Scene c. Choose Tutorials- Tools 1/27. ===== 3. We want to highlight the functionality of the Algodoo: Sketch tool a. Activate the Tutorials work area by tapping the icon b. Open a new "scene" to be able to execute the proposed New File-Scene tasks c. Choose Tutorials- Sketch tool tutorial 1/27. ===== 4. We want to highlight the way in which a body of different textures floats when immersed in a liquid. a. Open Lesson tutorials - Float and sink b. First we have to create the scene: i. Create a tank by adding a rectangle using the Brush Tool and Box Tool ii. For rectangle, we change the state of aggregation from solid to liquid by right-clicking and selecting Liquify. ===== 5. We want to test the effect of diving or floating objects by modifying the aggregation state. a. Create a tank that adds a rectangle using the Brush Tool and Box Tool b. Create a polygon using the Polygon tool c. Run the built-in Simulation-Start scene To explore the effects of cutting a solid body into a liquid using Algodoo, start by diving the solid object into the liquid using the Knife tool. Analyze the outcome (Figure 13). Next, utilize the Liquify option by right-clicking on the cut bodies to alter their aggregate state (Figure 14).