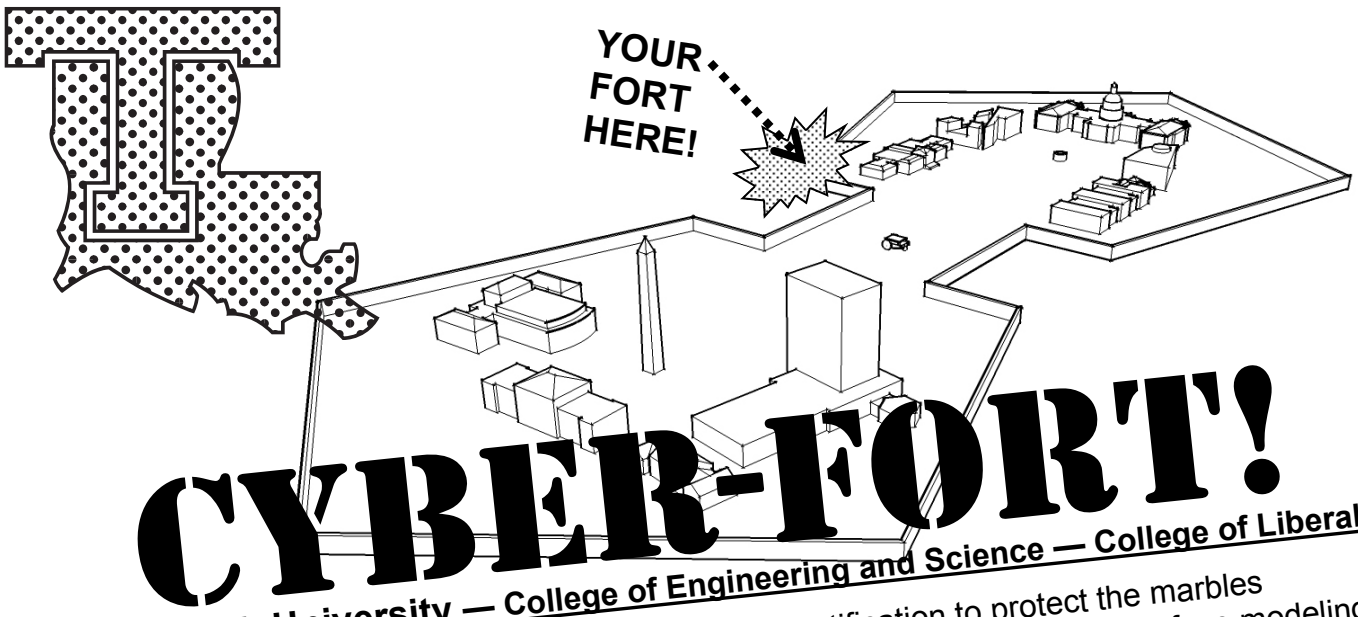
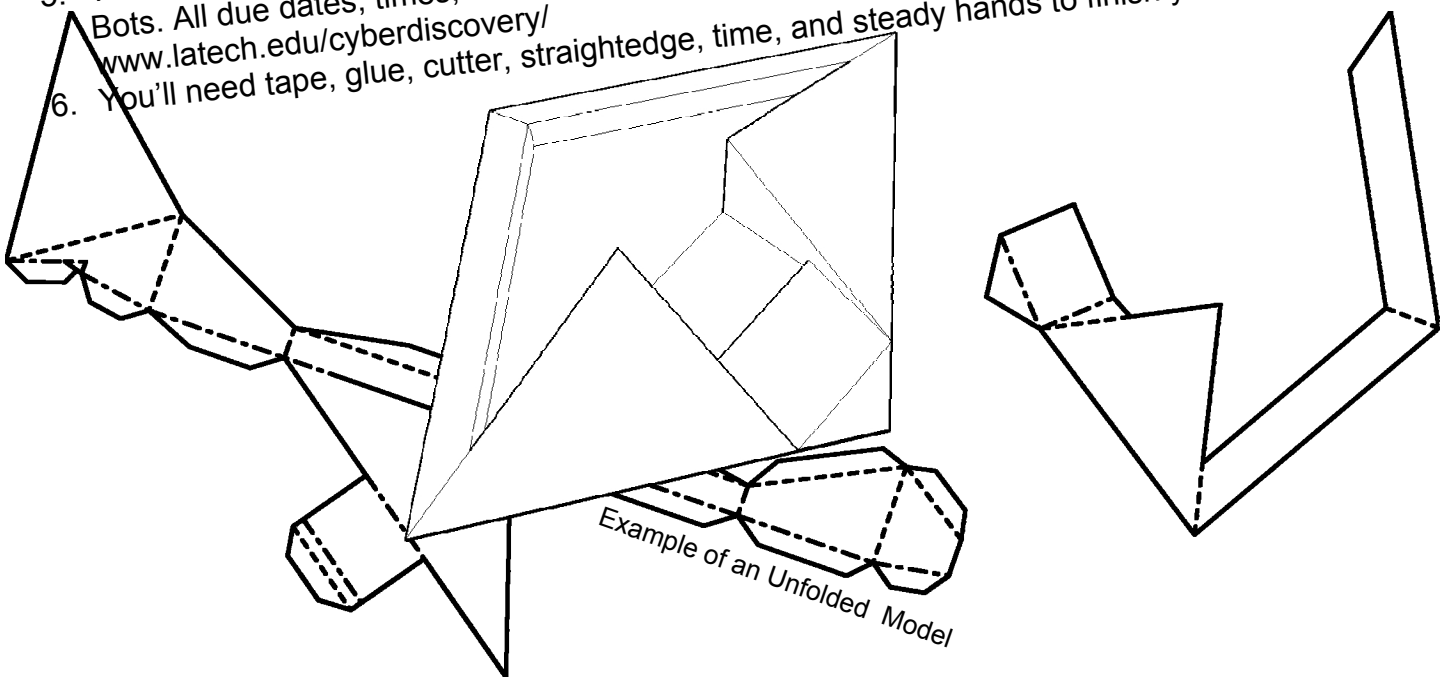


CYBER-FORT!

Louisiana Tech University — College of Engineering and Science — College of Liberal Arts

You have been asked to digitally design and fabricate a fortification to protect the marbles collected by your team's Boe-Bot. You will get basic training in the use of a 3-D surface modeling application called SketchUp (Google has a free basic download @ sketchup.google.com). With the assistance of your instructor and research assistants, you will use the 3-D information you design to generate a pattern created in Rhinoceros (another computer application found at www.rhino3d.com), and then digitally fabricate your design out of 1/16" chipboard using an Epilog Laser Cutter in the School of Architecture. Below rules each team must follow:

1. Each model must fit fully into one of the five the parallelogram boundary at each inside corner of the pentagonal arena.
2. Your total height limit is 5". Keep measurements to whole inches, with only an occasional 1/2".
3. You can only use triangular, square, or rectangular faces for your fort. An occasional five- or six-sided polygon is acceptable, but **no curves or circles**! See the examples, and **keep it simple:** do not design anything too complex or too small (it will make final assembly really tough)!
4. Your fort must have a bottom surface (a floor) with sides to fully contain all your collected marbles. The bottom sides of any solids should be open and hollow.
5. Your cyber-fort should fit the operability of your Boe-Bot, but be defensible against competing Boe-Bots. All due dates, times, and means of submitting will be posted at www.latech.edu/cyberdiscovery/
6. You'll need tape, glue, cutter, straightedge, time, and steady hands to finish your cyber-fort!



Example of an Unfolded Model