

Magnetic Tiles

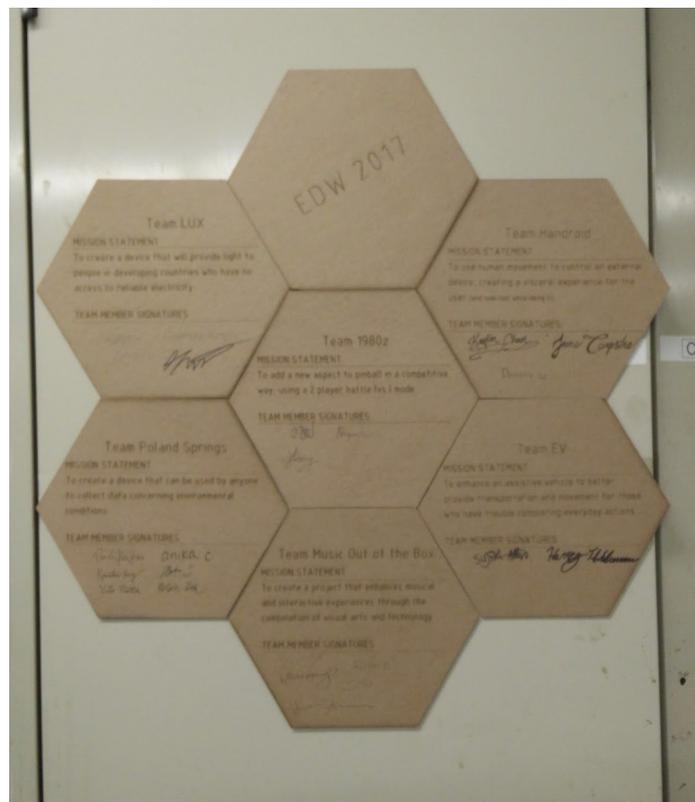
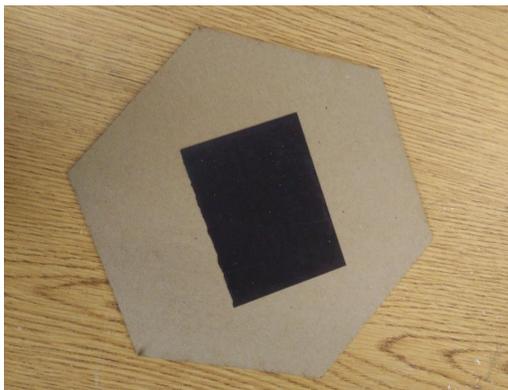
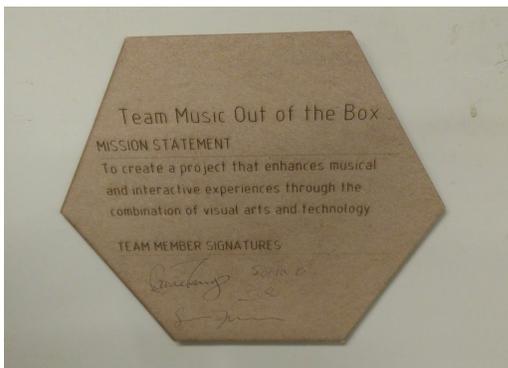
Specialized tools/technology used:	Experience level required:
Laser cutter 2D graphics modeling software (Gravit, Inkscape, etc.)	Beginner

Grade Level (of this example): K-12

Summary of Project:

Students work individually or in teams to make one piece of a content-themed collective work. They will create their design by using 2D design software to create their design, and cut their design with the laser cutter. A template with a starter shape and/or text can be provided by the teacher or a student. Magnetic strips on the back allow tiles to stick to a magnetic board as well as to be repositioned. For presentation, each piece comes together to form one large composition. Presentation is expected to include passive display on classroom or public wall, and works well with groups sharing out their designs to class.

Images of finished student work





More about the example pictured above:

High school students in an engineering class were using this activity not only to familiarize themselves with design and production tools - they were working to establish class/shop culture. Student engineering teams each created a mission statement, designing and engraving it on a chipboard tile. With some simple limits set by the instructor (all teams use the same font; no graphics beside signatures), students focused on learning basic tool use due to short time required for pre-fab.

Extensions:

Math - Groups can work to design sets of tessellating tile shapes. Pairs can design tiles that connect to form solids, engravings that share information about the shape or use a mathematically derived pattern to decorate

ELA - Students learning about symbols and motifs in literature can work in pairs or groups to design tiles that interlock - see also our [Tile Puzzle write-up](#)