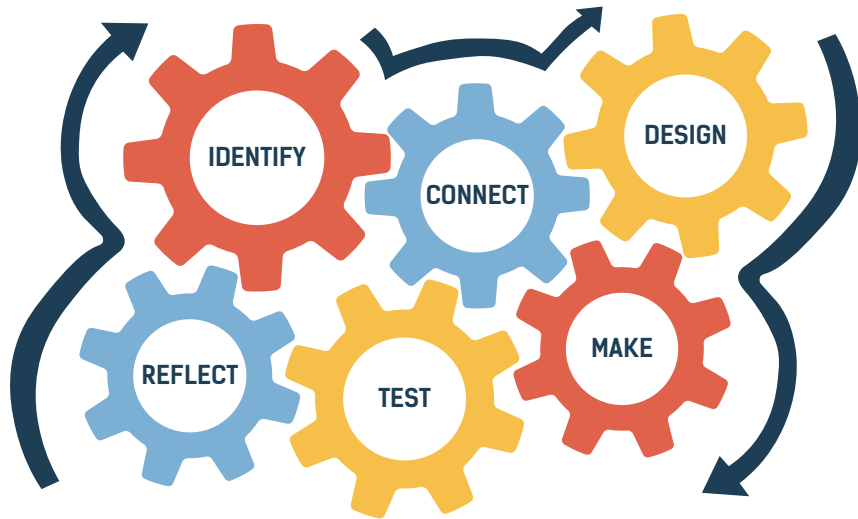


MAKERSPACE COURSE PROJECTS: The Design Process



All makerspace faculty structure their course projects around some type of design and making process. Here at BeAM, we like to use the one to the left - it reflects the iterative nature of design and making, allowing you to bounce back and forth through different phases depending on what your project goals are. Below, you'll find a description of each phase and a few example assignments that correspond to each phase.

IDENTIFY

Students build foundational skills/knowledge to inform their project.

This could include:

- Reading articles
- Watching films
- BeAM tool trainings
- Practicing with design software

CONNECT

Students connect their foundational knowledge to how it informs their design.

This could include:

- Forming a research question
- Identifying a theme to investigate
- Brainstorming ideas for projects
- Creating lists of project needs or specifications

DESIGN

Students turn their ideas into designs for review and fabrication.

This could include:

- Submitting design sketches for peer feedback or instructor review
- Writing design docs that connect design to fabrication (e.g. materials to use, etc.)

MAKE

Students make a physical version of their final project.

This could include:

- Making low-fi prototypes out of everyday materials (cardboard, etc.)
- Making higher resolution prototypes using tools (e.g. Laser Cutter, 3D Printer, etc.)

TEST

Students get feedback on their project's look and function.

This could include:

- Having small-group design critiques
- Students using rubrics to assess draft work
- Develop tests and collect data on prototypes through experimentation

REFLECT

Students reflect on their work and their design process.

This could include:

- Doing a gallery walk or "science fair"
- Presenting either in class or through online videos
- Writing reflection papers that explain design choices and connections to course content