DIGITAL FABRICATION, WEARABLE DESIGNS, + OVERSEAS PARTNERSHIPS

JENNIFER ASTWOOD
ASSOCIATE PROFESSOR OF INDUSTRIAL DESIGN
UNIVERSITY OF WISCONSIN - STOUT
UW-STOUT (INDUSTRIAL DESIGN)

NUST MISiS (MASTERS in DIGITAL FABRICATION)
IDEATION + CONCEPT DEVELOPMENT
MAKE + REPEAT TO SUCCEED
МИСИС
Цветные и драгоценные материалы
Материалы электроники и техники
Теплофизика и экология

FABLAB
MOSCOW
TWO WEEKS

[WEARABLES]
WEARABLES

CONSPIQUITY
**Goals** for students to learn the following……

- Learn the **design process**
- Learn to **code**
- Learn to **create electronics**
RESEARCH

CREATE A PRESENTATION:
COLLECT OBSERVATIONS
CREATE A USER TASK ANALYSIS
USER TREND BOARD
VISUAL INSPIRATION BOARDS
DEFINE DESIGN IMPLICATIONS
RESEARCH

CREATE IMAGE BOARDS

DEFINE YOUR VISUAL INSPIRATIONS
RESEARCH

CREATE A USER TREND BOARD

DEFINE YOUR USER WITH IMAGES + TEXT.

URBAN HIPSTER

Electrical Engineer
Loves American fusion, retro trends, loves color and texture, watches local bands at First Avenue...
RESEARCH

CREATE A

USER TASK ANALYSIS

REFERENCE EXAMPLE

DEFINE user - task - environment

TASK
What is the task?
What defines that task?
What is the action involved with that task?

ENVIRONMENT
What is the environment?
What is in the environment?
- Bathroom
- Toilet, Sink

USER
Who is the User?
- Tween girl, age 12

DESIGN IMPLICATION:
DESIGN NEEDS TO HAVE A SLIP-PROOF GRIP.
**Goals** for the project were the following……

*Design* and *engineer* within 2 weeks to *research* a problem, *design* the form while *creating* code and the electronics.
LOW LIGHT CONDITIONS

PEOPLE BLEND IN WITH THEIR SURROUNDINGS.
What emerges

Goals for students to learn the following…….

Learn the design process
Learn to code
Learn to create electronics
To design visually interesting objects
Collaborate
Gain confidence
What emerges

Goals for students to learn the following:

- Learn the **design process (use digital fabrication)**
- Learn to code
- Learn to create electronics
- To design visually interesting objects
- Collaborate
- Gain confidence
What emerges

Goals for students to learn the following......

Learn the design process
Learn to code
Learn to create electronics
To design visually interesting objects
Collaborate
Gain confidence
What emerges

Goals for students to learn the following......

- Learn the design process
- Learn to code
- Learn to create **electronics**
- To design visually interesting objects
- Collaborate
- Gain confidence
What emerges

Goals for students to learn the following…….

Learn the design process
Learn to code
Learn to create electronics
To design visually interesting objects
Collaborate
Gain confidence
What emerges

Goals for students to learn the following......

- Learn the design process
- Learn to code
- Learn to create electronics
- To design visually interesting objects
- Collaborate
- Gain confidence
What emerges

**Goals** for students to learn the following……

Learn the design process
Learn to code
Learn to create electronics
To design visually interesting objects
**Collaborate**
Gain confidence
What emerges

**Goals** for students to learn the following……

- Learn the design process
- Learn to code
- Learn to create electronics
- To design visually interesting objects
- Collaborate
- **Gain confidence**
PROCESS
[ITERATION]
IT LIGHTS BY A PROXIMITY SENSOR!
STUDENT RESULTS
PRINTING ON FABRIC
PURCHASE + INVESTIGATION OF 2 NEW 3D PRINTERS

ULTIMAKER 3
FORMLABS 2
ULTIMAKER 3

JEFF PEASE
FORMLABS 2

KENYON BRANDON
APPEARANCE MODELS + PROTOTYPES
GOGGLES

KENYON BRANDON
STUD FINDER

CALEB TOFT
STUD FINDER
Thank you for your time + keep making!