

Project Production& Prototyping

项目流程&原型制造

Week06_2

PROJECT PRODUCTION | 项目流程

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There is no single method of project production, and how a project gets produced should be adapted to the type of project and the team of people producing it.

An artistic project built by a single person is likely to employ a different methodology than a project built by a large team building a commercial product, however most projects evolve through a series of common stages.

一个项目的产生必然有自己的方式，不同的团队也有不同的模式，一个艺术项目会被艺术家独立完成而一个商业项目可能由一个庞大的团队协作完成，但是总的来讲一个项目的完成通常有几个共同的阶段



PHOTO BY HITOYAM

AN ITERATIVE PROCESS | 螺旋上升

Project production is an iterative process that begins by analyzing the needs and requirements of users, ideating, sketching or prototyping possible solutions, testing and the evaluating of results, before a project can be developed and finally delivered.

螺旋曲线：项目的推进是一个循环往复而螺旋上升的过程，从分析用户需求和要求开始，发展概念，做草案 / 原型 / 可能的解决方案，测试并评估结果，如此往复

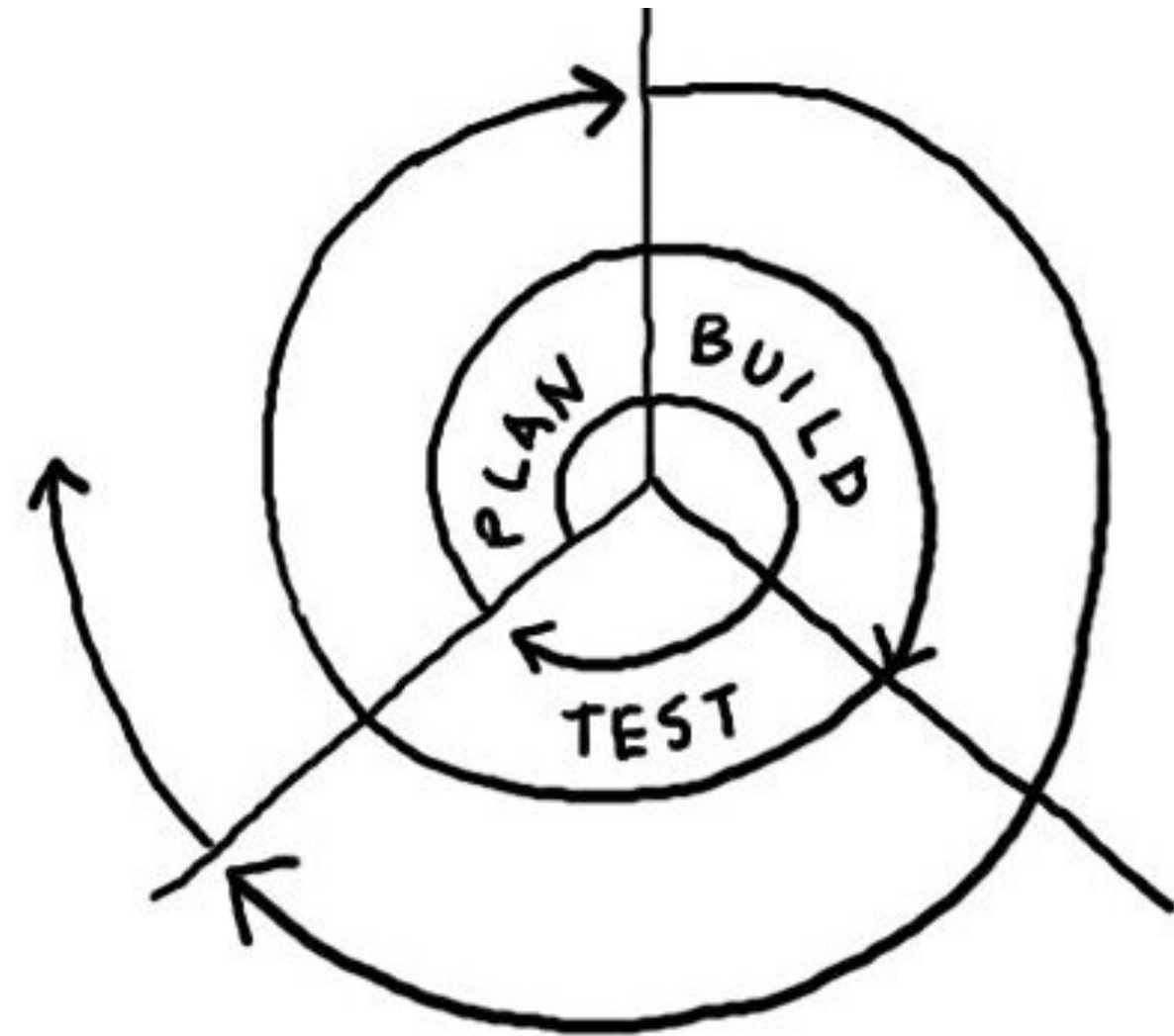


PHOTO BY DGRAY_XPLANE

NEEDS & REQUIREMENTS | 需求

Needs and requirements analysis begins by asking questions of potential users to determine the challenges they face or the demands they have.

At this stage it is important to listen and learn what people are asking for.

需求分析从潜在使用者问卷调查开始，确定他们的需要和面对的困难，这个阶段聆听用户的要求以及向用户学习非常重要



PHOTO BY JILLIGAN86

IDEATION

In commercial project Production, after listening to the needs of project stakeholders (users and / or management) a team of designers and developers will engage in a process of ideation, where many thoughts are freely exchanged.

The goal of this stage is to devise a plan of action that will successfully and affordably meet the requirements of stakeholder

在商业项目的产出进程中,明确用户需求后,设计师和开发者会参与到**idea**的发展,这个阶段不同的想法自由地交换,这个阶段的目的是提出有效的**idea**以满足用户需求



PHOTO BY _DCHRIS

DESIGN

The design stage involves taking the ideas generated in the ideation stage and expanding on them to the point where they become possible and practical.

Feedback should be frequently sought from stakeholders as ideas move closer to implementation.

Development involves the actual implementation of the project.

设计阶段将发展**idea** / 想法并生成实际有效的构思。
在**idea**向最终有效解决方案的发展中不断地从用户端获取反馈会很有必要



PHOTO BY ALEKSI AALTONEN

SKETCHES, SCHEMATICS

The design process can involve creating sketches, schematics, process diagrams called wireframes, blueprints, or prototypes depending on the project.

At this stage designers experiment with several different ideas.

Failure is a part of the process that should be embraced.

设计的过程可以包括创造草图，绘制电路图、分析图解或蓝图以及原型制造，在这个阶段设计师会探索、尝试实现不同的 **idea**，失败将是不可或缺的一个环节。

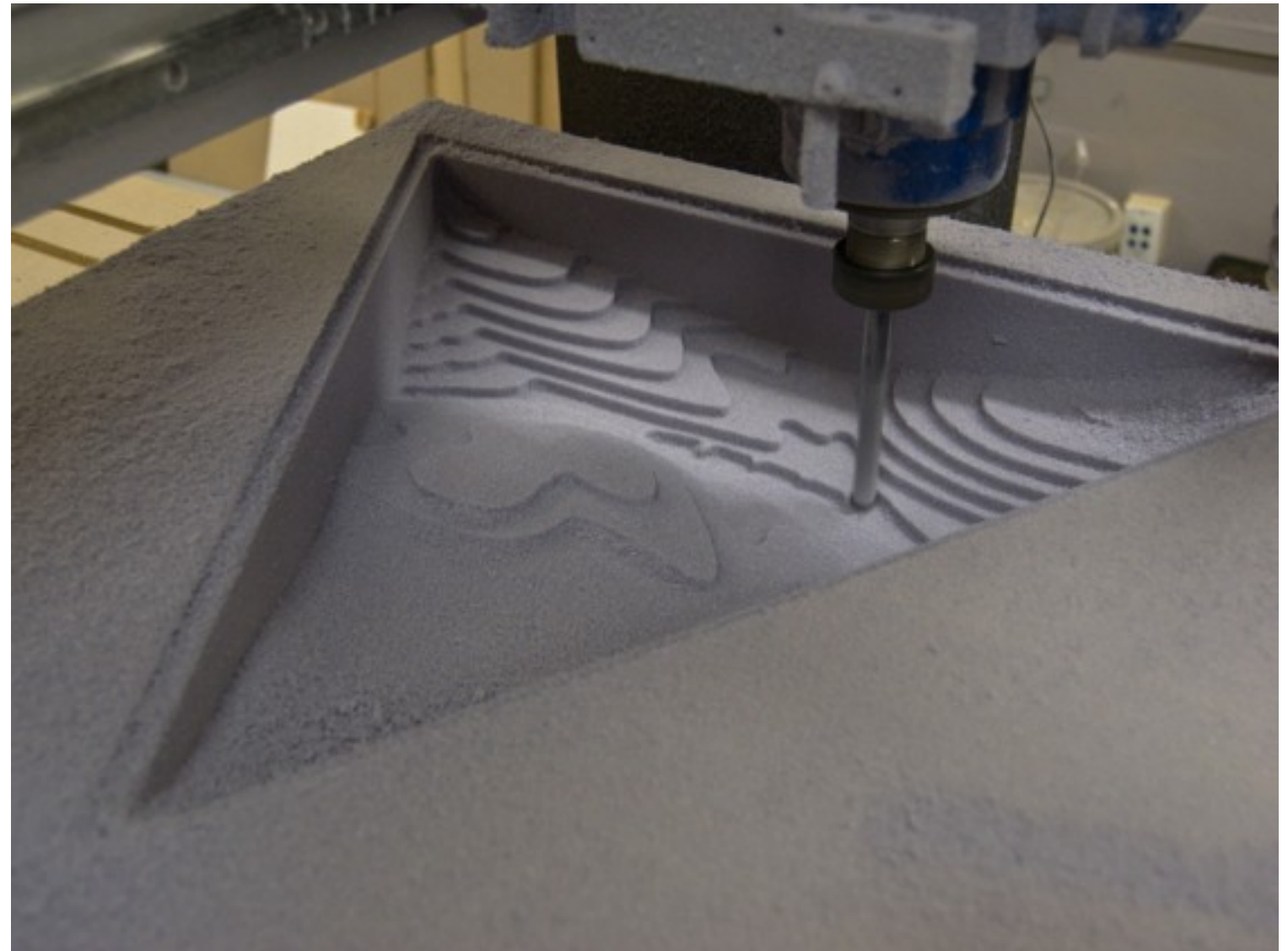


PHOTO BY CONARCIST

DEVELOPMENT | 开发

Development involves the actual implementation of the project.

开发包含的是最终项目的实现。

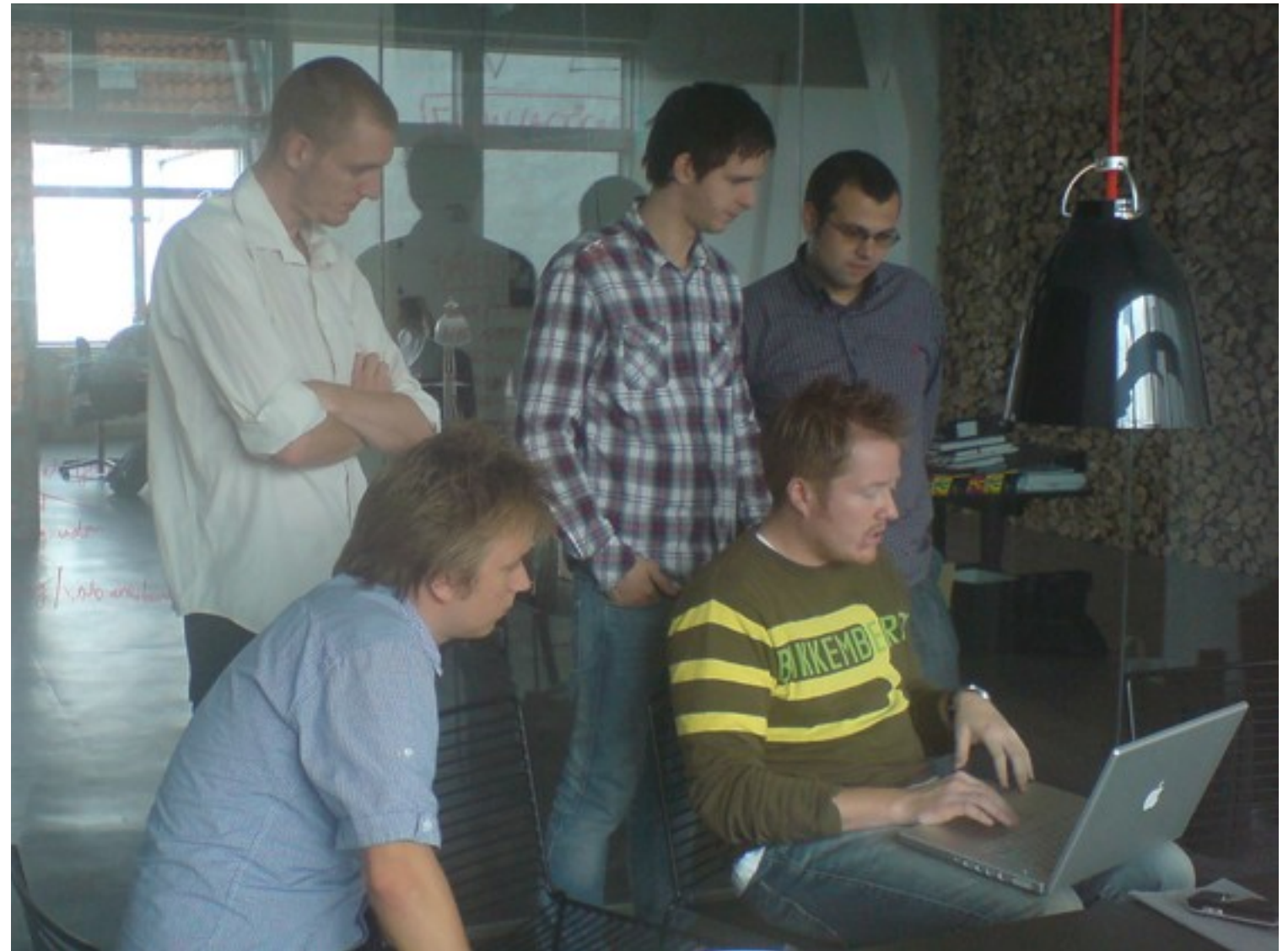


PHOTO BY JACOB BØTTER

IDEAS VS. IMPLEMENTATIONS | 想法VS.实现

Although project production begins with ideation, ideas are just thoughts.

They come at no cost, and everyone has them.

Implementation requires the practical skills to put an idea into effect.

Despite what some people will tell you, ideas are simply not as important as implementations.

尽管项目从**idea**开始，但是**idea**终归只是想法，他们在被实现之前并没有价值，每个人都会有想法。但是**idea**的实现却要求操作技能，从这个角度上说，**idea**并没有实现**idea**这个行为、过程重要



PHOTO BY XURXO MARTÍNEZ

TESTING | 测试

Testing can be conducted at any point in this process to determine if a project actually meets the requirements of it's intended users.

Test results should be evaluated to determine if improvements can be made.

Testing is also an important part of the debugging process.

测试可以在任何需要的阶段发生，以测试项目是否符合用户的需求，测试的结果需要被评估以帮助改进项目



PHOTO BY THEMEPAP

DOCUMENTATION | 记录

Documentation is critical for commercial projects because they may have long design and development cycles.

It can take a year or more to bring a product to market, and team members are sometimes reassigned to other projects before project completion.

Documentation provides critical information to future team members about what previous team members have done and why.

对一个商业项目而言，项目开发周期可能很长，可能是一年或者更久，而团队成员可能变动，而有效的记录可以让新成员有效而快速理解前期成员的工作成果并继续工作。

```
/**
 * Provide notification of a critical non-recoverable error a
 * execution abnormally.
 *
 * Display the format string and its expanded arguments (prin
 *
 * In a linuxapp environment, this function dumps the stack a
 * abort() resulting in a core dump if enabled.
 *
 * The function never returns.
 *
 * @param format
 *   The format string
 * @param args
 *   The variable list of arguments.
 */
#define rte_panic(...) rte_panic__(__func__, __VA_ARGS__, "dun
#define rte_panic_(func, format, ...) __rte_panic(func, forma
__)

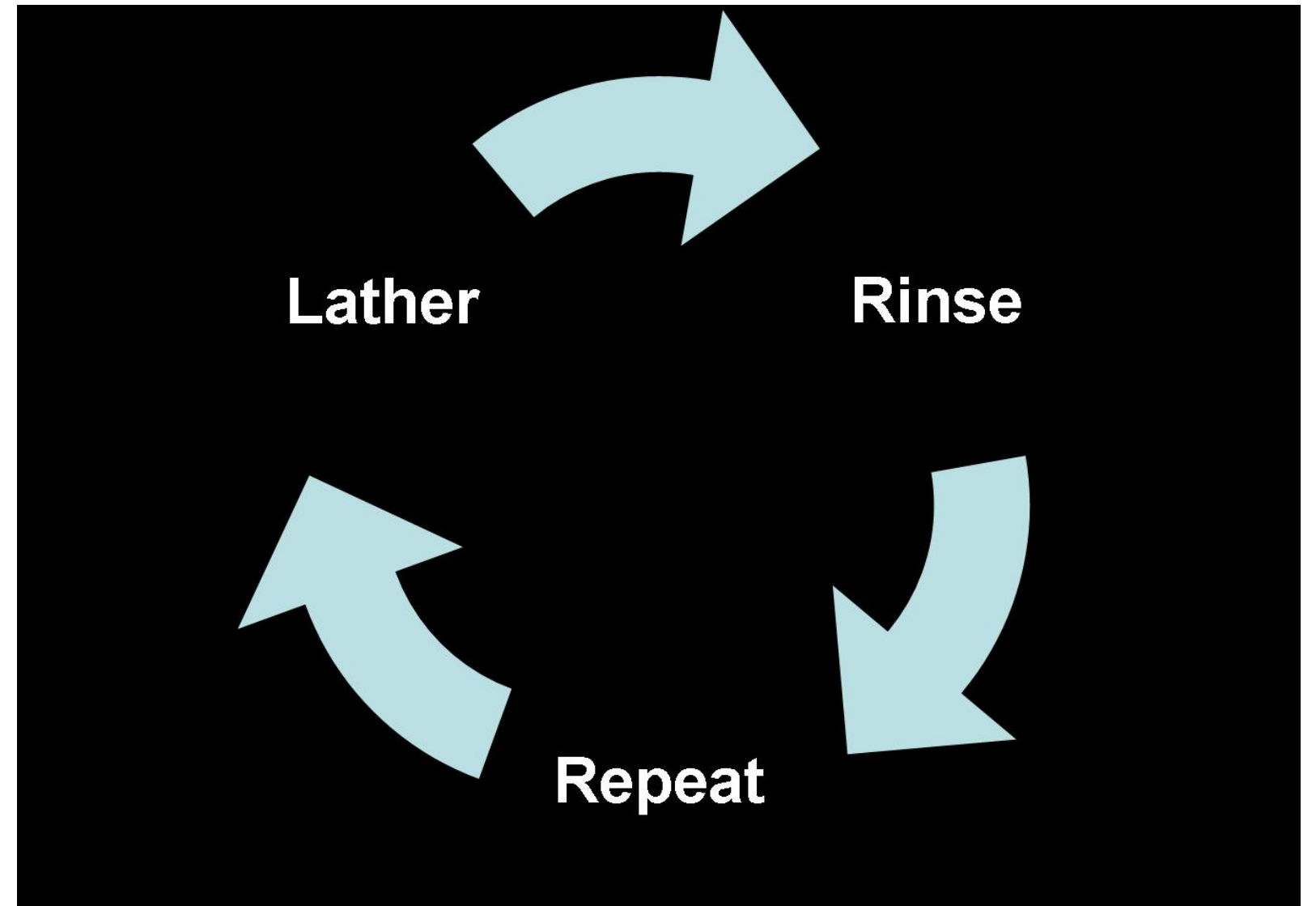
/*
 * Provide notification of a critical non-recoverable error a
```

PHOTO BY LINUX SCREENSHOTS

LATHER, RINSE, REPEAT

These processes are likely to be carried out repeatedly until a project reaches maturity, at which point it can be delivered.

而这个过程将会循环往复直到项目成熟而可以被提交



DELIVERY | 提交

Delivery has traditionally been considered the end of the project production process because it involves the handoff of the project to the Stakeholders.

However, delivery increasingly marks not an end, but a second beginning.

Products are now regularly updated after delivery with new feature and bug fixes, and products are increasingly tied to ongoing services

项目提交往往被认为是项目的最终完成，因为项目最终从设计师提交 / 转交到用户，然而现在的情况不再如此，项目提交不再是中止，而是第二次开始，现在的项目常常根据使用情况发展新的功能并进行更新



PHOTO BY SHELL BELLE

PROTOTYPING | 原型制造

PROTOTYPING

Prototyping involves creating a working model of something so that a design can be tested before going into development.

原型制造指的是进入工程开发之前快速创建一个工作模型以便测试设计。

对于独立设计，尤其对于独立设计师 / 艺术工作者而言，原型制造是主要手段，并且原型与最终成品的界限亦可以比较模糊。



PHOTO BY CANNEDTUNA

MIDTERM PROJECTS

Work in Class

MIDTERM PROJECT

探索Processing + Arduino 的可能性并实现一个项目，可以是一个实用的产品，也可以是一个艺术作品，比如一张数字生成的绘画，或者一个互动的装置，更可以是个有趣的玩意儿，Just for fun.

尝试着去把你在这门课里面学到的内容应用到项目中，体验交互设计项目的全过程，完成你的产品 / 艺术作品.

Midterm projects and documentation are due on May 16th

MIDTERM MEETINGS| LAB 09: Project Planning & Prototyping

Thursday 05.05(12) 3:30 pm – 5:00 pm

lab 09: Project Planning & Prototyping 工作营09:项目发展 （课内工作时间，讨论和答疑）

We will meet to discuss your individual roles in your midterm projects and your group's progress.

No.01:祝代平

No.02:陈彧杰+黄涛

No.03:王汉滔+李鑫晟

No.04:Aven

No.05:陈琳+杨思雨+王逸

No.06:陆依韵+张圣洁

No.07:蔡天成