Designing and Launching an Embedded Product

Class 2: Success Through Design and Development Processes

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DesignNews

CEC CONTINUING EDUCATION CENTER

Presented by: Digi-Key ELECTRONICS

Course Overview

Topics:

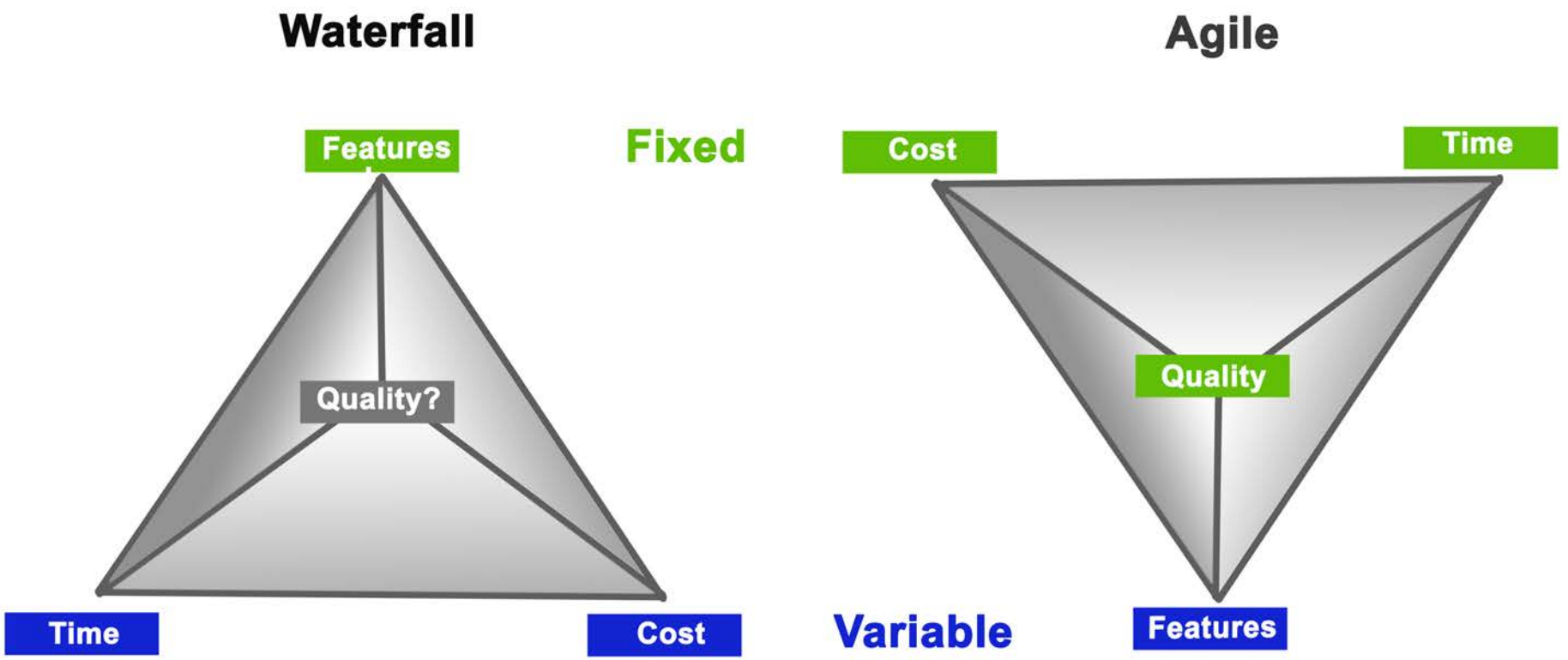
- The Business of Product Development
- **Success through Design and Development Processes**
- Scalability, Architectures and the MVP
- Achieving Quality and Reasonable Time to Market
- Techniques for Accelerating Time to Market

Session Overview

- Managing Development
- Design Processes and Tools
- Build Processes

Presented by:

Waterfall versus Agile



Managing Development – Dev Ops

PLAN, TRACK, & SUPPORT

Jira Software

Plan, track, and release world-class software with the #1 software development tool used by agile teams.

Learn more →

Jira Align

Connect business and technology teams to align strategy with outcomes at enterprise scale.

Learn more →

Jira Service Desk

Give your customers an easy way to ask for help and your agents a fast way to resolve incidents.

Learn more →

CODE, BUILD, & SHIP

Bitbucket

Collaborate on code and manage your Git repositories to build and ship software, as a team.

Learn more →

Sourcetree

Harness the full power of Git and Mercurial in a beautifully simple application.

Learn more →

Bamboo

Continuous integration, deployment, and release management.

Learn more →

COLLABORATE

Confluence

Spend more time getting things done. Organize your work, create documents, and discuss everything in one place.

Learn more →

Trello

Collaborate and get more done. Trello boards enable your team to organize projects in a fun, flexible, and visual way.

Learn more →

Managing Development - Time

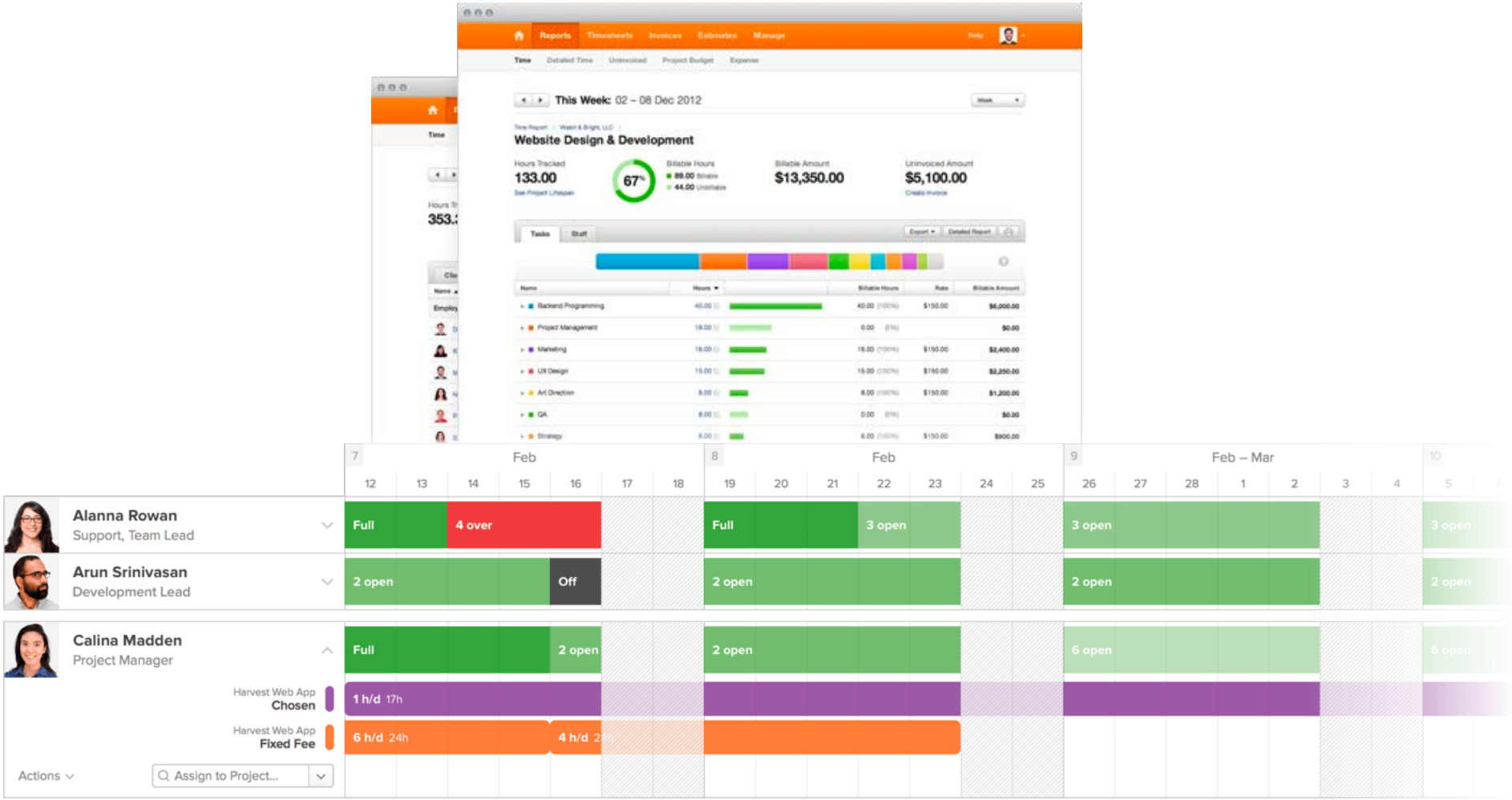
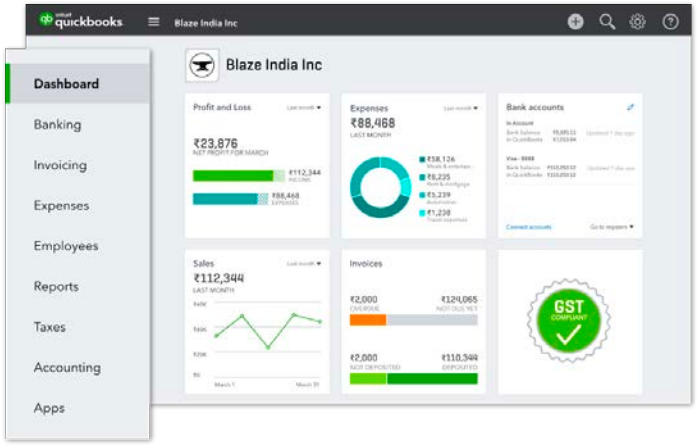
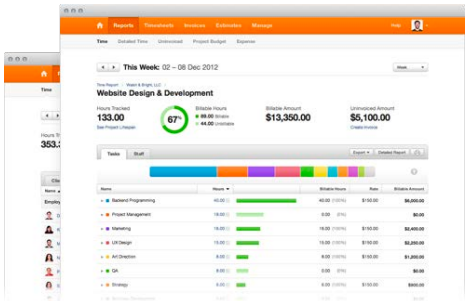


Image source: Harvest App

Accounting Processes

Accounting Software





Requirements Processes – Stories

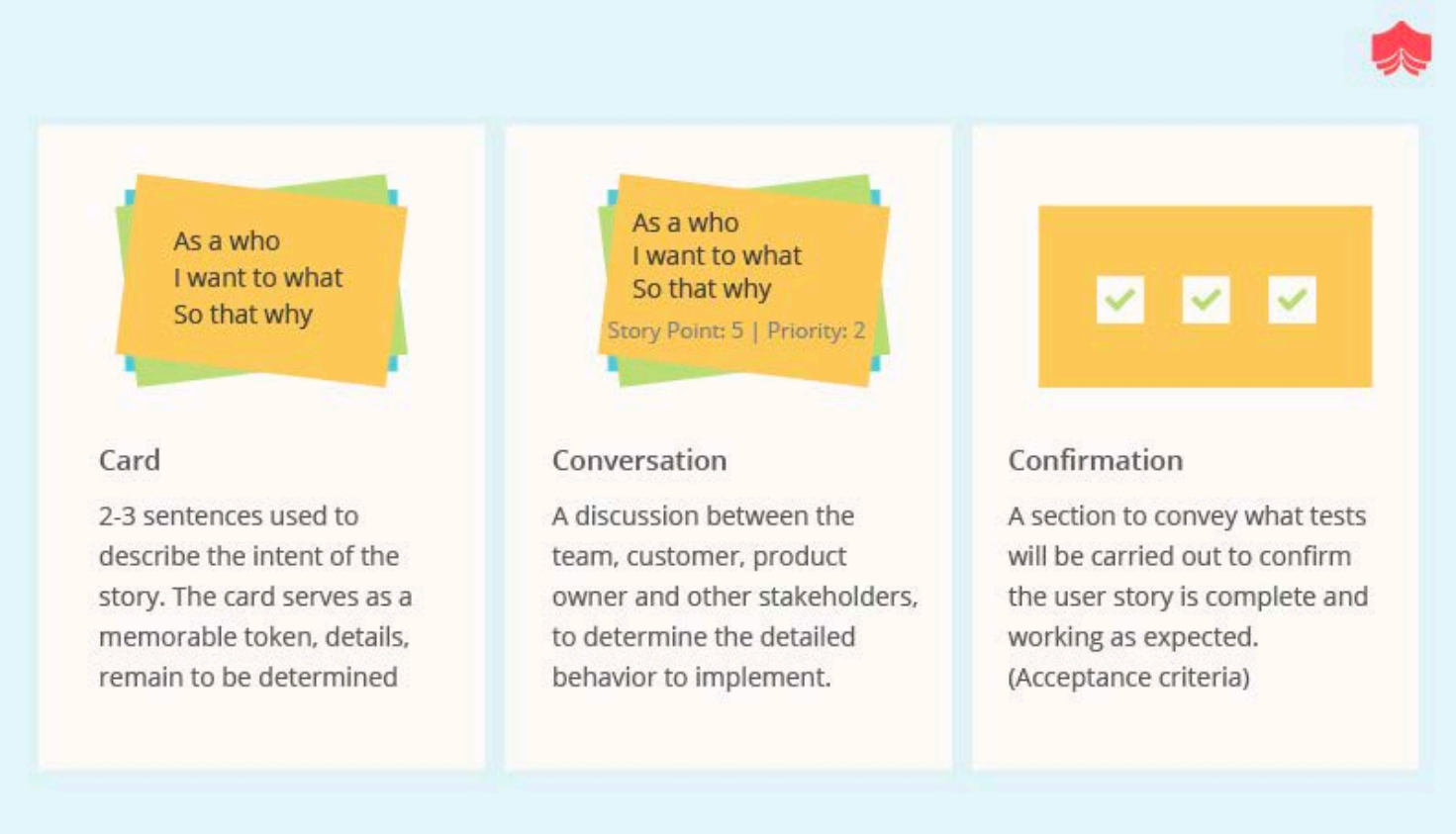
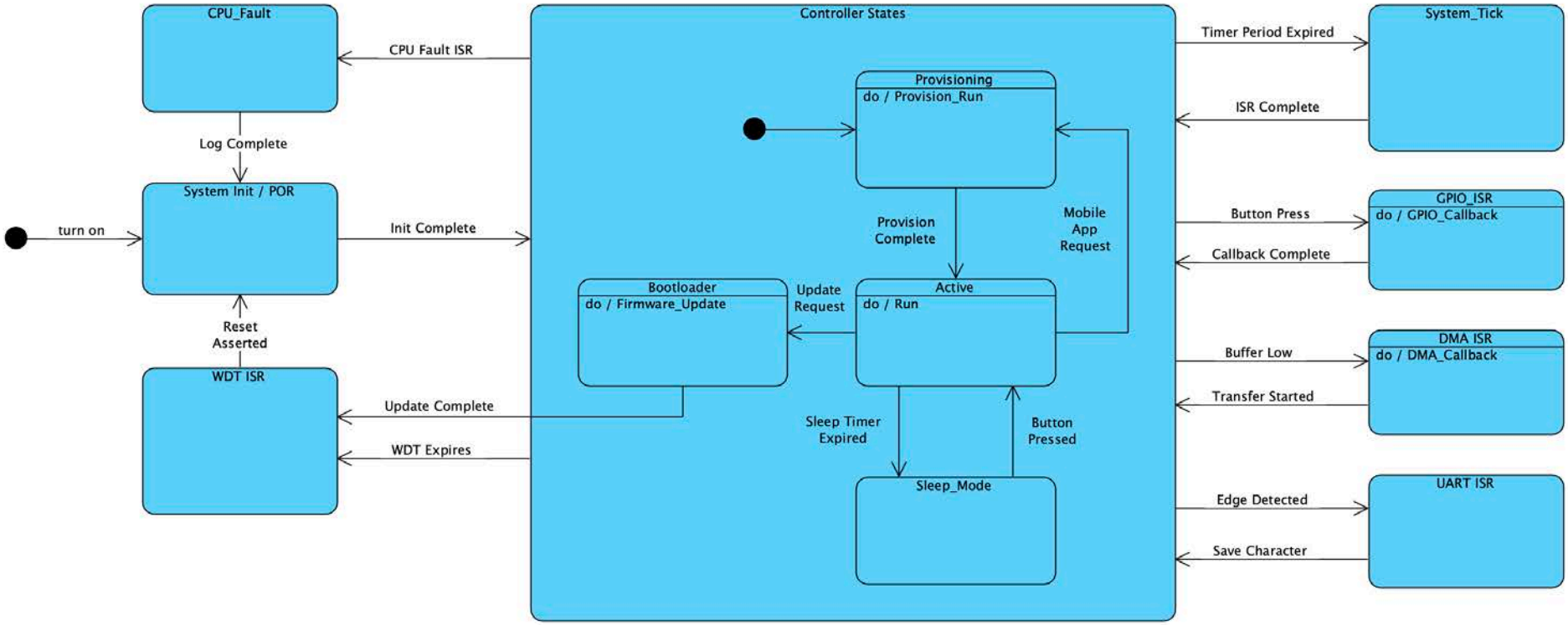


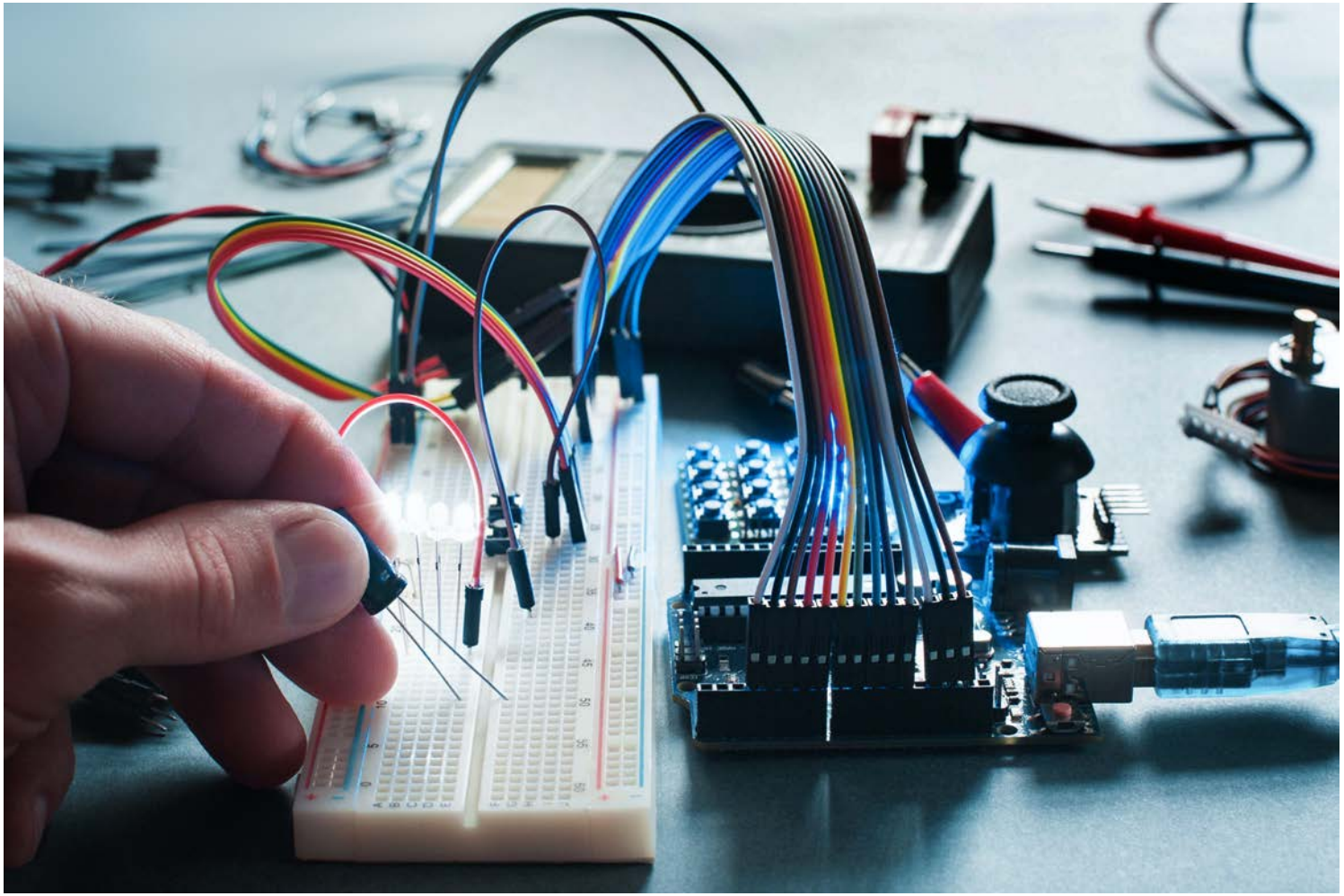
Image Source: https://www.knowledgehut.com/blog/agile/powerful-tips-for-writing-the-best-user-stories-in-scrum

Design Processes - Architecture

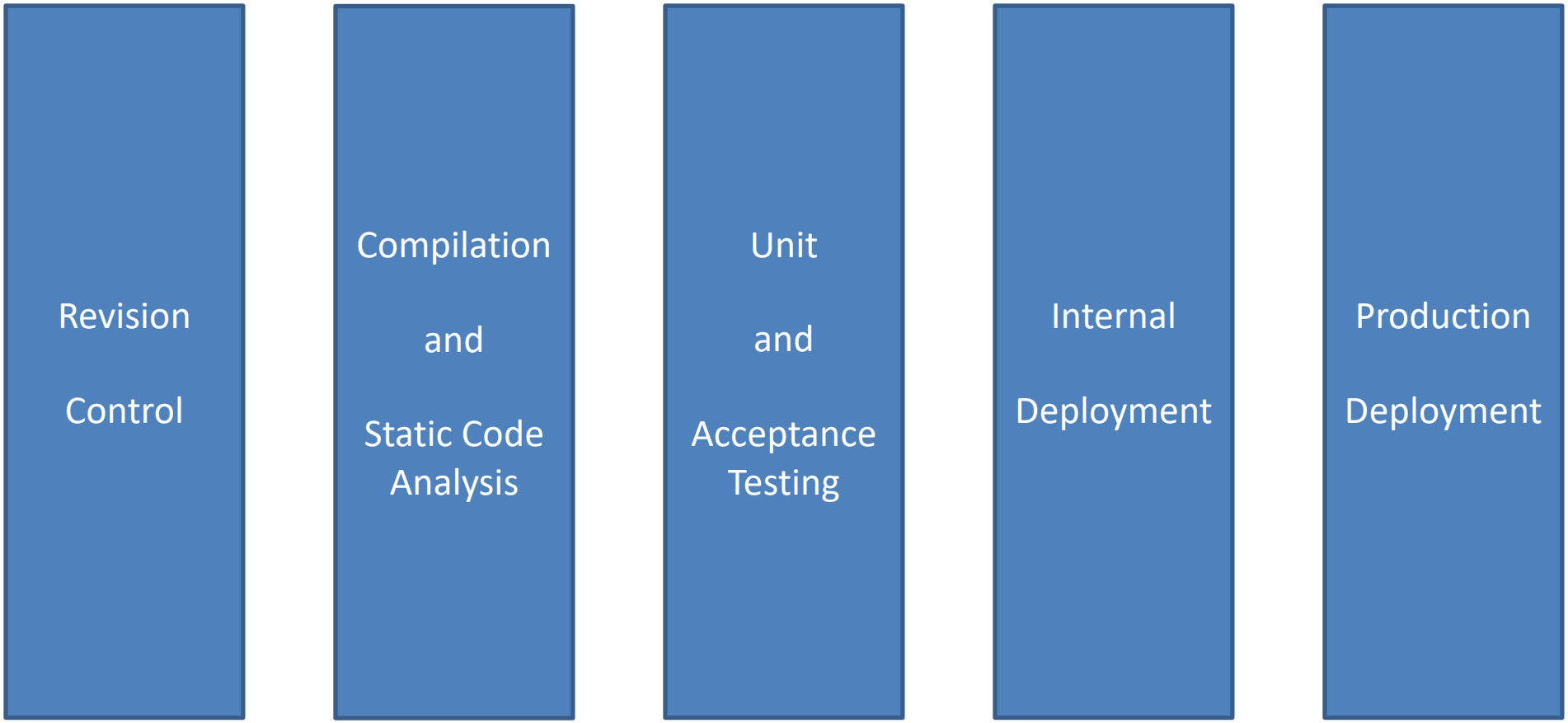


Design Process - Simulation

Design Process – Rapid Prototyping



Build Pipeline Overview

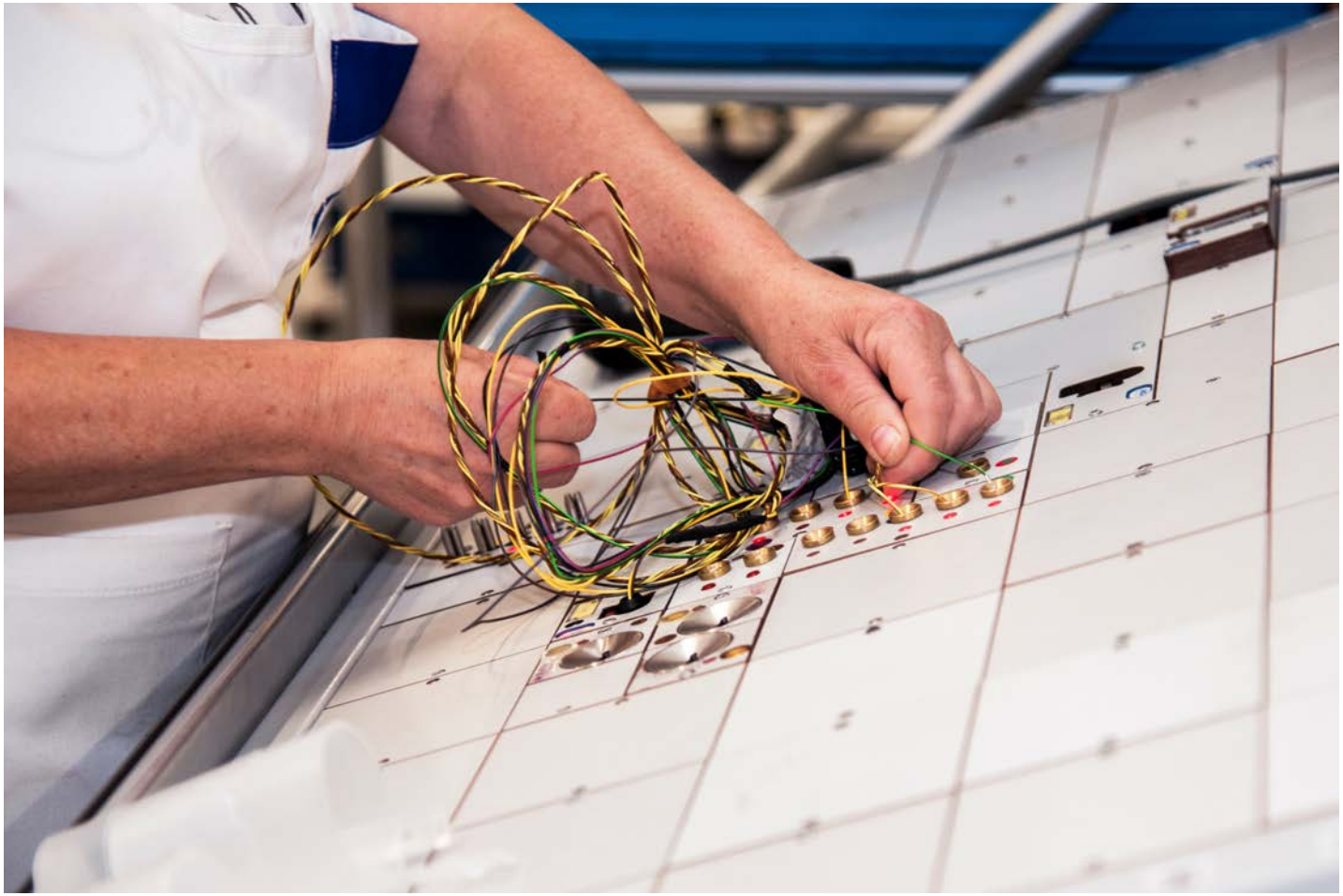


Static Analysis

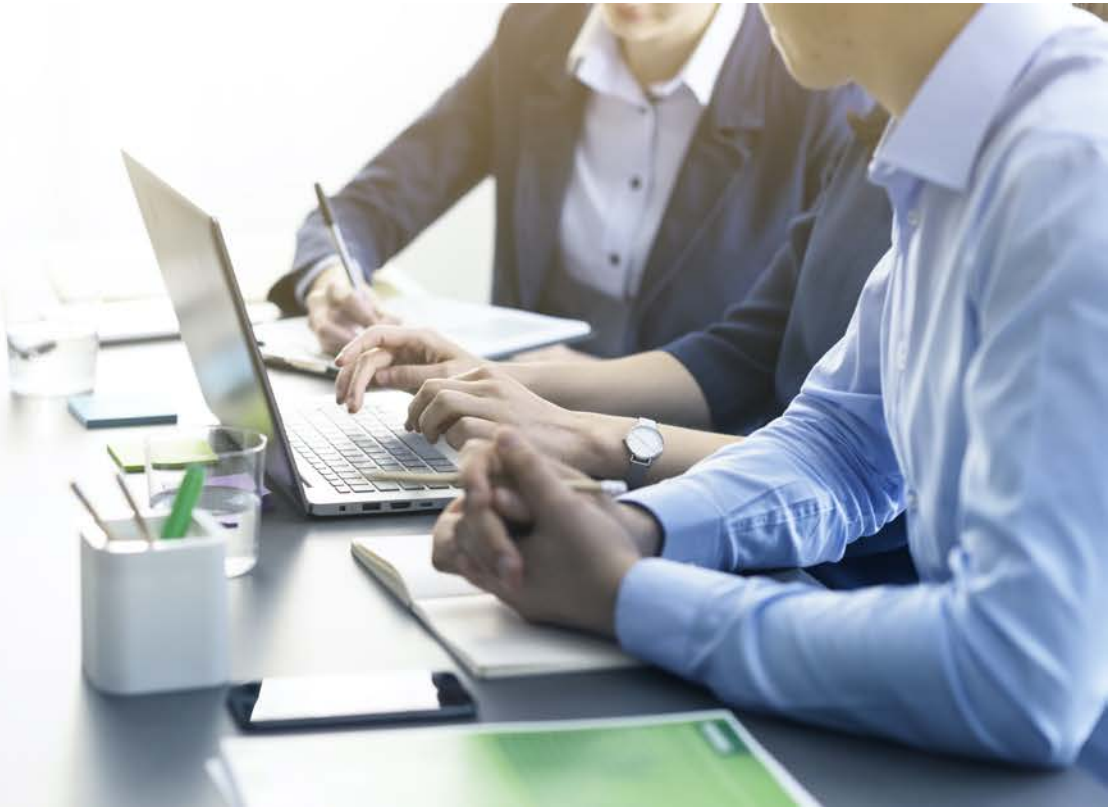
- clang
- PC-Lint
- Klocworks
- Parasoft C/C++ Test
- Coverity
- Frama-C
- SonarQube

Software Metrics

Test Harnesses



Code Reviews



Additional Resources

- Supporting Materials
  - Beningo.com
  - Blog
  - Code, White Papers, Courses
- Embedded Bytes Newsletter
  - http://bit.ly/1BAHYXm

From www.beningo.com under

- Blog > CEC – Designing and Launching an Embedded Product