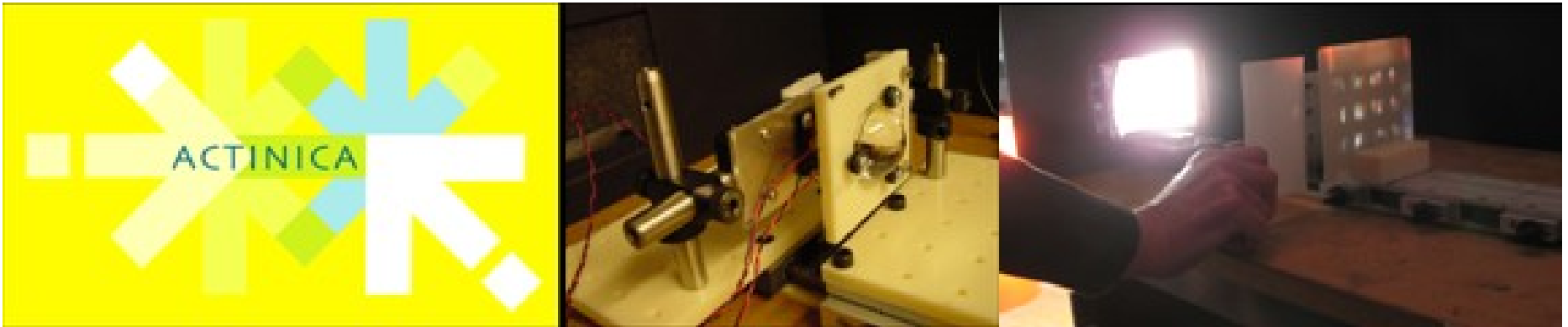


# ACTINICA

measure

illuminate

solve



ACTINICA

is

Pete Flowers and Mike Beach

What problems can we solve for *you*?

# ACTINICA

measure

illuminate

solve

- **“For a successful technology, reality must take precedence over public relations, for nature cannot be fooled”.**
  - Richard Feynman, physicist, Nobel Laureate

## ***About Us***

Most of our work takes place in the area between science and engineering. Both principals bring a systems viewpoint to their work, but individually, our formal backgrounds are different. This makes for an inherently cross-disciplinary approach to problem solving.

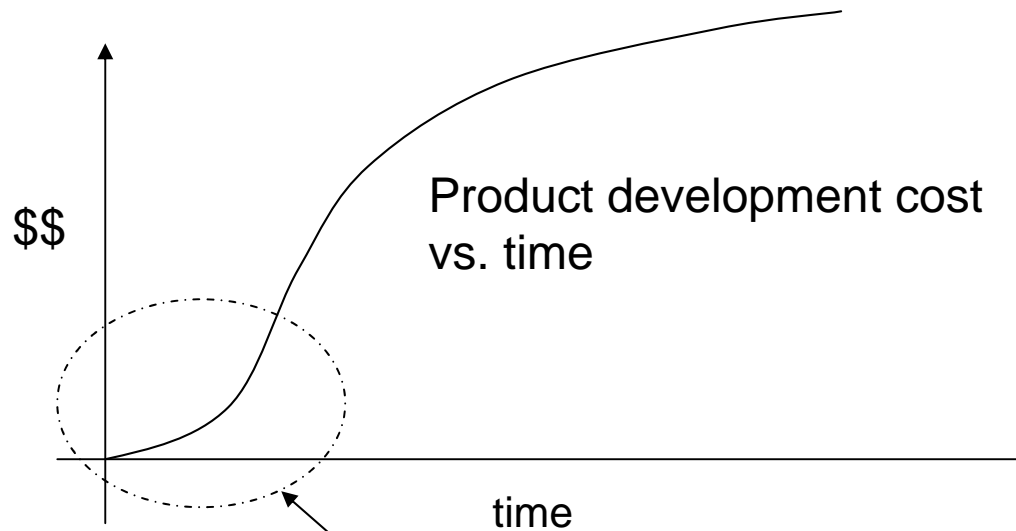
We share Lord Rayleigh’s opinion of the power of measurement to inform knowledge. In science, measurement is used to inform knowledge for its own sake. In commerce, the knowledge gained is used to enhance product design or production.

# ACTINICA

measure

illuminate

solve



We work at the early project stage,  
*to help leverage your skills*  
to provide  
product development cost savings

# Case Studies

- Blind spot detector for cars
  - (seeing is believing, challenge assumptions)
- Cones for light collection, portable instrument
  - (systems approach to a systemic improvement)
- Low noise is good system design
  - (when steel is better than aluminum)
- TIR and LEDs – get that light where you want it
  - (coaxing photons beats brute force)

# Characteristics of our case studies

Best path to success

Idea to realization

Early phase proof of concept

We help you get unstuck

Hunt like a hawk

The data don't care how you feel

Do the right experiment

Able to walk away from history

Optics, electronics, analog, instrumentation, mechanisms

# Our approach

- Make the critical experiment
- Multidiscipline systems view
- Empirical – **measure, and measure the right thing!**
- Make the data visible – we like Tufte
- Understand primary phenomena
- We question – until we get the right answers

# How do **we** work with **you** and **your team**?

- Hands on approach
  - We combine testing and debug with simulation and math
- We want you involved throughout the problem solving
  - We can't do everything alone – you know your market and goals best
- Teaching how-to, not just debug
  - We really like to debug, and we want to show you what we learn
- Project estimates in phases
  - we're sensitive to your budget constraints
  - Sometimes cancelling or stopping a project is money well spent
- YOU own the IP and patents developed by us for you
- Documentation, drawings, project reports
  - Part of the complete package delivered to you

# Clients

some **examples** of our **work**

- Animation studio, 3D camera work
- MEMs sensors, optics and electronics
- Electronic nose handheld monitor
- Laser marking and cutting systems
- PID type servo designs
- High voltage electronics
- Low noise electronics
- Mechanism design and refinement



# Our resources and extended team

- We can prototype easily in our shop
  - ABS plastic makes a fast proof of principle
- Optics test bench and measurement equipment
- Electronic measurement equip
- We calibrate with the sun or the moon, if needed
  - Often build our own test gear, simple and effective
  - The sun is  $10^5$  lux; the moon a collimated test target
- Machine shops (KAS Machine, etc.)
- Industrial design (Innodyne)
- Software (custom SW from several colleagues)

# ACTINICA

- Ready to help leverage your skills
- Understand, Measure, Innovate, and Solve
- Proof of concept hardware, optics, ME, EE
- Algorithms and methods, improvements
- Design, prototype, early stage of a project
- We're here to help YOU get it RIGHT, early and often
- Contact us:
  - Mike Beach, Principal Engineer, EE [mike@actinica.com](mailto:mike@actinica.com) 617-470-3618
  - Pete Flowers, Principal Engineer, Optics, ME [pete@actinica.com](mailto:pete@actinica.com) 617-792-5451

