

Camera Technology Hardware solutions (10 hours)

As film directors set the challenge of filming every more ambitious sequences, it falls upon the cameraman to seek solutions to those problems. We will explore some of the solutions during this course and set you the challenge of designing and making a way of holding a compact camera steady while moving in shooting a sequence of film.

Breakdown of Sessions for the Workshops:

[Session 1: Introduction to the task](#)

Learning opportunities include:

- Looking at film from the point of view of the camera
- Shooting video on compact camera/iPad – fixed position
- Shutter speeds
- Introduction to challenges

[Session 2: Smooth Operator](#)

Learning opportunities include:

- Identifying the problem – choose a sequence of film to re-create
- Shooting video – moving camera
- Researching the problem:
 - Industry solutions: rig system, Steadicam, crane, dolly, drone, Omcopter
 - Solutions in other areas of life
 - Collecting information from different sources

Session 3: What Should My Product Do?

Learning opportunities include:

- Specification – what is it? Why do we need it?
- Researching based on the spec

Session 4: Ideas!

Learning opportunities include:

- Importance of ideas
- Generating Ideas – looking at different methods of finding ideas
- Communicating our ideas – notes and sketches, explaining to others

Session 5: What's My Best Idea?

Learning opportunities include:

- Developing the Solution
- Which is our best idea? Notes and sketches
- How will we make it? Breaking it down into parts
- Planning – materials, measurements, time

Session 6: Making 1

Learning opportunities include:

- Practical skills – measuring, cutting, shaping
- Safety – self and others

Session 7: Making 2

Learning opportunities include:

- Practical skills – joining, finishing

Session 8: Does It Work?

Learning opportunities include:

Testing against specification

Notes and sketches to show which parts work well, what could be improved

Session 9: Making Changes

Learning opportunities include:

Modification – making the changes

Planning presentation to class

Session 10: How Well did I Work?

Learning opportunities include:

Evaluation

Presentation of product to class