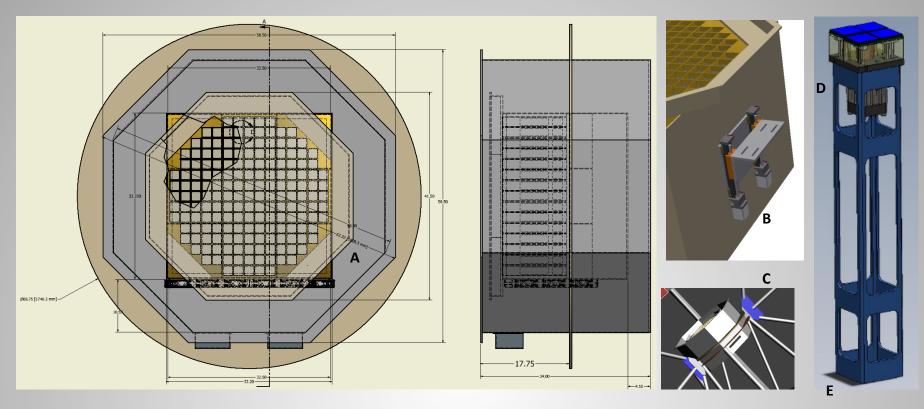
# **CTA** Camera Development

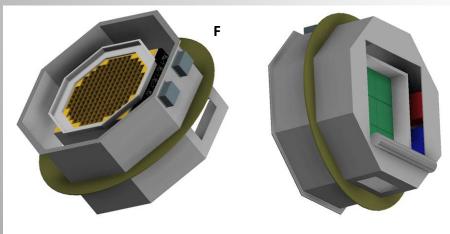
## Mechanical

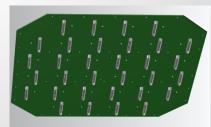
Washington University September 9 - 10 2013

Rich Northrop

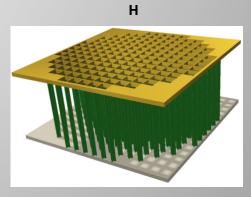
University of Chicago







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**Major Mechanical Concerns** 

#### Concerns-

200 Micron Location Demand on Sensors

Final Camera Size (based on new shadowing analysis)

**Bulkhead Design & Details** 

FEE to Cage Mounting

Sensor/Cage/Bulkhead Mounting (location & locking)

Thermal Impact on Rack & Components

Camera Positioning - Z motor driven, X & Y manual

Mounting Flange Design

#### Need to Know -

**Bulkhead Mounting/Penetration Requirements** 

**FEE Details** 

**Sensor Details** 

**Final Shadowing Studies** 

Telescope/Camera Mount Ring Details

Camera Access

### Solutions -

Final & Exact Bulkhead Layout

Precision Location & Locking Mechanism for Module/Sensors

Mounting Design for Cage/FEE/Bulkhead

Camera XYZ Positioner Design