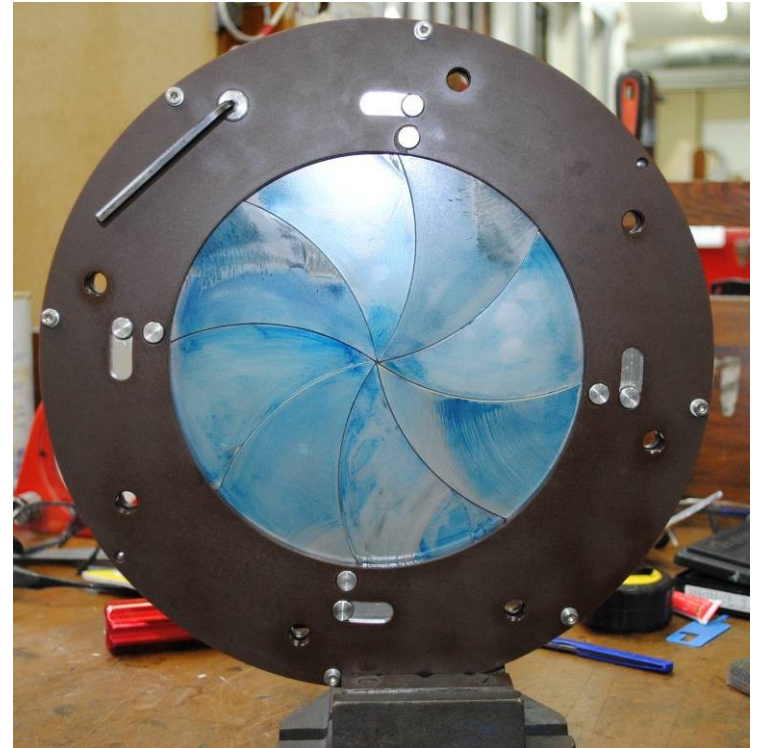
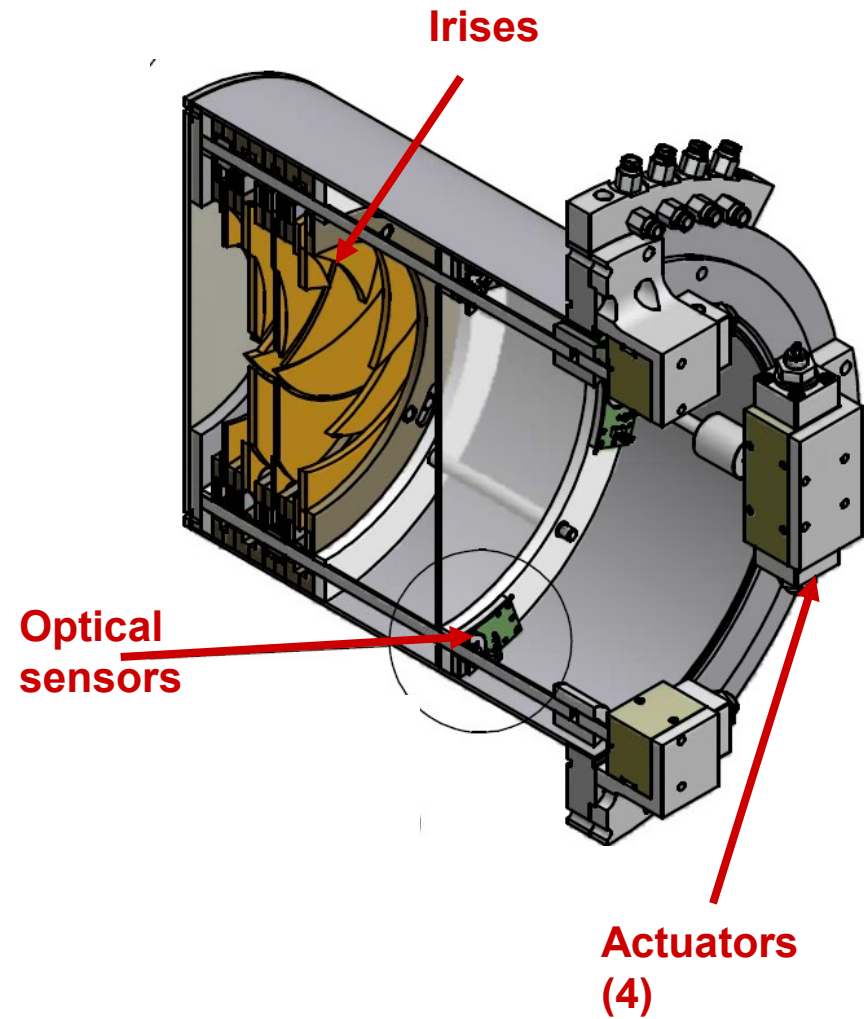


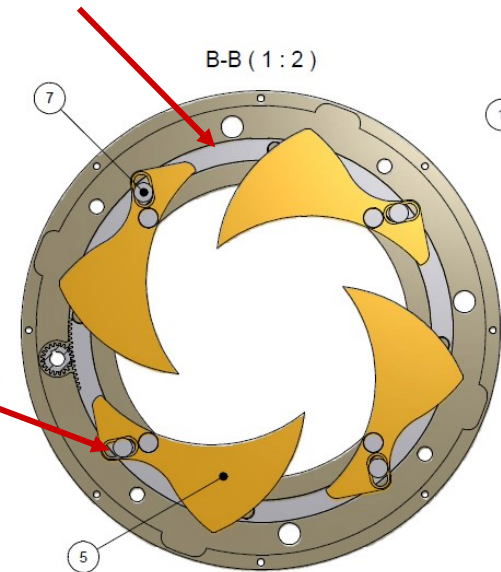
# DIFFUSER CM29



- **About 75 – 80 percent complete**
  - **Materials in hand**
  - **All Tufnol cassettes made**
  - **2 sets brass petals (3mm & 6mm) made**
  - **6mm brass cassette assembled & tested by hand**
  - **Drum being machined**
  - **Four home-made non-magnetic actuators made; one tested**
  - **PCBs for opto-sensors made & stuffed**
  - **Mods to electronics crate ~ finished**
    - **Not committed to final front panel yet (cosmetics)**
  - **Still to finalise design of air crate**
    - **Need some experience of pneumatic actuators**
- **Progress limited by**
  - **Availability of effort / CNC machines / my availability to chase**

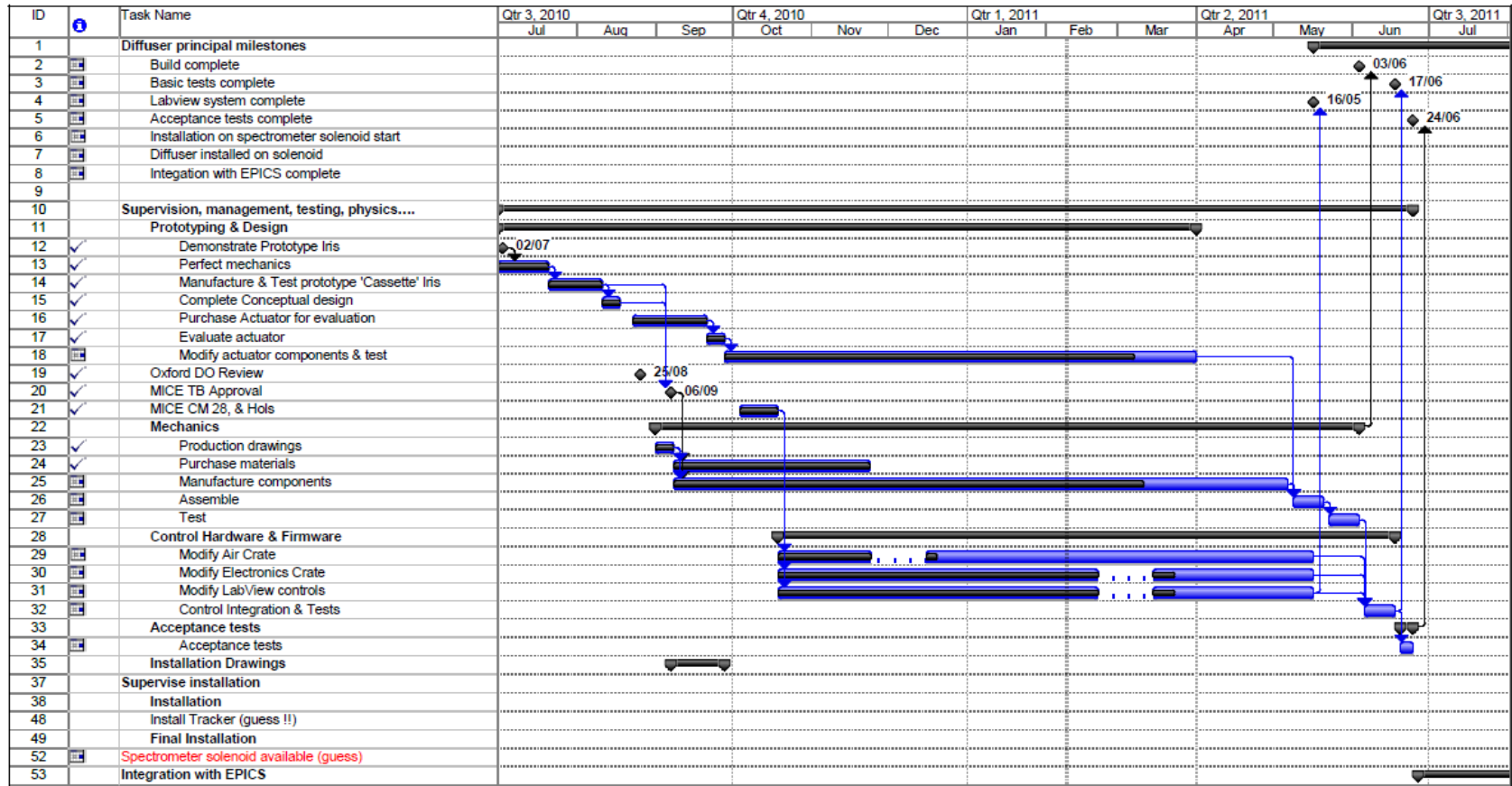
## Technical problems

1. Proved tricky to machine 4mm thick SS “inner rings”
  - Aluminium not good enough
    - Need to grind machined SS flat
2. Tolerances of slots in petals are tricky
  - Long lever arm to centre
    - 0.05 mm gets multiplied by ~8 when closed
      - Unsightly gaps at centre (bad teeth!)
        - ~1% physics problem
  - Mainly annoying
    - But may be worse with Tungsten
  - Examining solutions



**We want to play with some slots & holes in some gash tungsten before cutting the petals – expensive material**

# SCHEDULE



**Main hold up is availability of effort (including me & V.B.) & machines**

**Mechanics finished “not before Easter” (24 April)**