**Goal:**
Demonstrate the surface finish and form accuracy achievable when machining a Head-Up Display (HUD) mold on either the Nanoform® 700 ultra or the Nanoform® L 1000 machine platform using Adaptive Control Technology (ACT) and an HD160 high capacity work holding spindle.

**Process:**
Freeform XZC diamond turning with Adaptive Control Technology to eliminate errors in X and Y that repeat with spindle position

**Part Details:**
- Material: Brass

**Process Details:**
- Tool: Single point diamond tool
- Tool radius: 1.5 mm
- Spindle speed: 200 rpm
- Feed rate: 2.5 µm/rev
- Coolant: Odorless mineral spirits (OMS)

**Results:**
- Surface finish near center: 0.744 nm Ra
- Surface finish near edge: 1.31 nm Ra
- Form error: 0.79 µm PV