

Fig. 13. Schematic of FINCH recorder. BS: beam splitters; SLM: spatial light modulator; CCD: charge-coupled device; L is a spherical lens with $f = 25$ cm focal length. $\Delta\lambda$ indicates a chromatic filter with a bandwidth of $\Delta\lambda = 60$ nm.

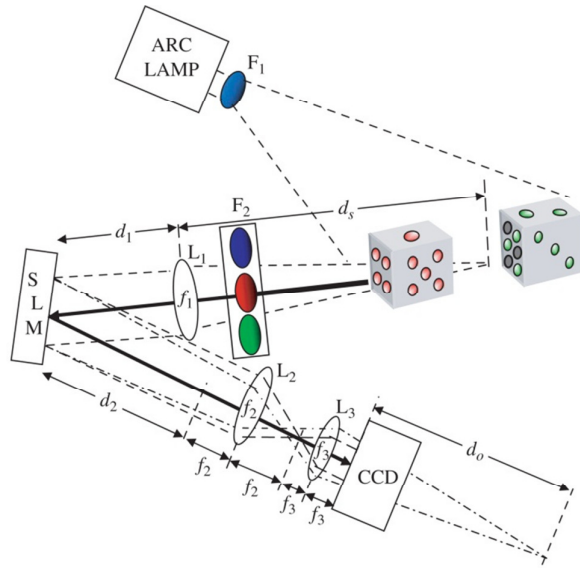


Fig. 15. Schematics of the FINCH color recorder. SLM: spatial light modulator; CCD: charge-coupled device; L_1 , L_2 , L_3 are spherical lenses and F_1 , F_2 are chromatic filters.

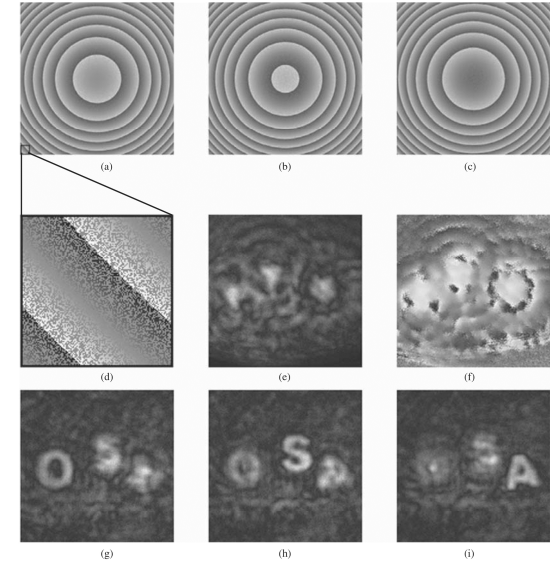


Fig. 14. FINCH results: (a) Phase distribution of the reflection masks displayed on the SLM, with $\theta = 0^\circ$, (b) $\theta = 120^\circ$, (c) $\theta = 240^\circ$. (d) Enlarged portion of (a) indicating that half (randomly chosen) of the SLM's pixels modulate light with a constant phase. (e) Magnitude and (f) phase of the final on-axis digital hologram. (g) Reconstruction of the hologram of the three letters at the best focus distance of 'O'. (h) Same reconstruction at the best focus distance of 'S', and (i) of 'A'.

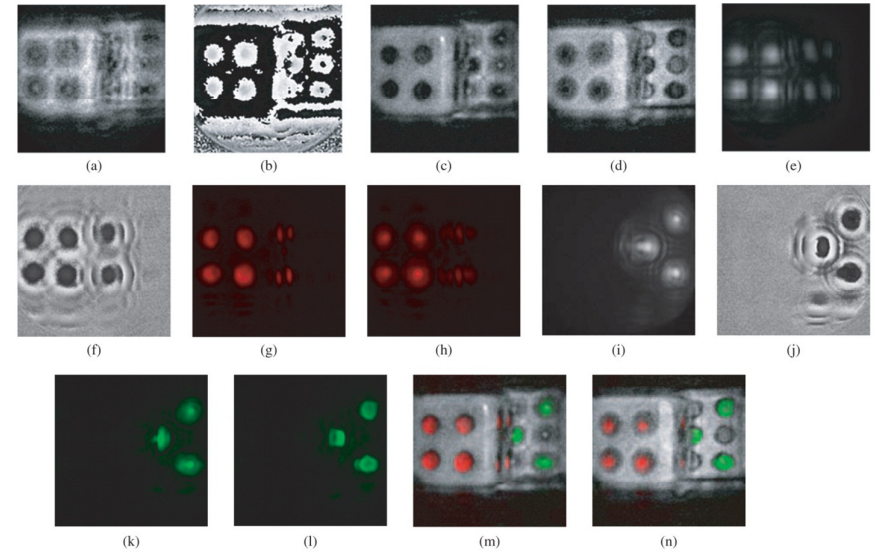


Fig. 16. (a) Magnitude and (b) phase of the complex Fresnel hologram of the dice. Digital reconstruction of the non-fluorescence hologram: (c) at the face of the red-dots on the die, and (d) at the face of the green dots on the die. (e) Magnitude and (f) phase of the complex Fresnel hologram of the red dots. Digital reconstruction of the red fluorescence hologram: (g) at the face of the red-dots on the die, and (h) at the face of the green dots on the die. (i) Magnitude and (j) phase of the complex Fresnel hologram of the green dots. Digital reconstruction of the green fluorescence hologram: (k) at the face of the red-dots on the die, and (l) at the face of the green dots on the die. Compositions of Figures 16(c), (g), and (k) and Figures 16(d), (h), and (l).