

$$i(x) = x^3 + x^2, \text{ 1100}$$

$$x i(x) = x^4 + x^3, \text{ 11000}$$

$$x^2 i(x) = x^5 + x^4, \text{ 110000}$$

$$x^3 i(x) = x^6 + x^5, \text{ 1100000}$$

- $b(x) = (x^6 + x^5) + x$
- $b = (1100, 010)$

Encoder for $g(x) = x^3 + x + 1 = g_3 x^3 + g_2 x^2 + g_1 x + g_0$

