**Slide #1.**

In the Example, let

$$v_1 = 00000, v_2 = 10101, v_3 = 00111, v_4 = 11100.$$

Then

$$C = \{v_1, v_2, v_3, v_4\}.$$

We have:

- $C$ *does not* detect the error pattern $e = 10101$ because $v_1 + e = v_2$. That is, $v_1 + e \in C$.
- $C$ *detects* $e = 01010$ because $v_i + e \notin C$ for $i = 1, 2, 3, 4$:

  $v_1 + e = 01010, v_2 + e = 1111, v_3 + e = 01101, v_4 + e = 10110.$

- $C$ *does not* detect $e = 11011$ because $v_3 + e \in C$:

  $v_1 + e = 11011,\ v_2 + e = 01110,\ v_3 + e = 11100 = v_4.$