OCF with Arbitrary Zeros

Start with the CCF

$$\begin{pmatrix} \dot{x}_1 \\ \dot{x}_2 \end{pmatrix} = \underbrace{\begin{pmatrix} 0 & 1 \\ -6 & -5 \end{pmatrix}}_{A} \begin{pmatrix} x_1 \\ x_2 \end{pmatrix} + \underbrace{\begin{pmatrix} 0 \\ 1 \end{pmatrix}}_{B} u, \qquad y = \underbrace{\begin{pmatrix} -z & 1 \end{pmatrix}}_{C} \begin{pmatrix} x_1 \\ x_2 \end{pmatrix}$$

Convert to OCF: $\qquad (A \mapsto A^T, B \mapsto C^T, C \mapsto B^T)$

$$\begin{pmatrix} \dot{x}_1 \\ \dot{x}_2 \end{pmatrix} = \underbrace{\begin{pmatrix} 0 & -6 \\ 1 & -5 \end{pmatrix}}_{\bar{A}=A^T} \begin{pmatrix} x_1 \\ x_2 \end{pmatrix} + \underbrace{\begin{pmatrix} -z \\ 1 \end{pmatrix}}_{\bar{B}=C^T} u, \qquad y = \underbrace{\begin{pmatrix} 0 & 1 \end{pmatrix}}_{\bar{C}=B^T} \begin{pmatrix} x_1 \\ x_2 \end{pmatrix}$$

We already know that this system realizes the same t.f. as the original system.

But is it *controllable*?