\[ G_c(s) = \frac{10}{s+10} \quad \text{d.c. gain} = 1 \]

\[ G_c(s) = \frac{10(s+4.05)}{s+10.93} \]

\[ D(z) = 10 \frac{z-1.25}{z-2.0} \]

\[ K = 8.3943 \]

\[ D(z) = 8.4 \frac{z-0.6632}{z-0.2932} \]

\[ D(z) = K \frac{z-0.673}{z-0.3679} \]

Block diagram of the digital control system