

$$\begin{bmatrix} \dot{\theta}_1 \\ \dot{\theta}_2 \\ \dot{\theta}_3 \end{bmatrix} = \frac{1}{r} \begin{bmatrix} -1/2 & \sqrt{3}/2 & 1 \\ -1/2 & -\sqrt{3}/2 & 1 \\ 1 & 0 & 1 \end{bmatrix} \begin{bmatrix} \dot{v}_x \\ \dot{v}_y \\ \dot{\phi} \end{bmatrix}; \quad \begin{bmatrix} \dot{v}_x \\ \dot{v}_y \\ \dot{\phi} \end{bmatrix} = r \begin{bmatrix} -1/3 & -1/3 & 2/3 \\ \sqrt{3}/3 & -\sqrt{3}/3 & 0 \\ 1/(3\lambda) & 1/(3\lambda) & 1/(3\lambda) \end{bmatrix} \begin{bmatrix} \dot{\theta}_1 \\ \dot{\theta}_2 \\ \dot{\theta}_3 \end{bmatrix}$$



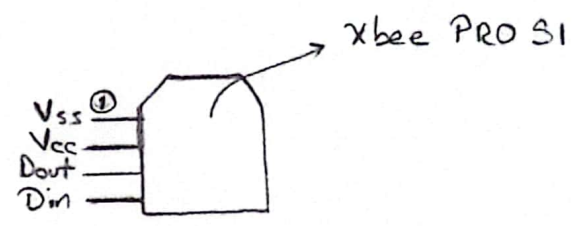
$$\begin{cases} \dot{v}_x = (r/3)(\dot{\theta}_1 + \dot{\theta}_2) + (2r/3)\dot{\theta}_3 \\ \dot{v}_y = (\sqrt{3}r/3)(\dot{\theta}_1 + \dot{\theta}_2) \\ \dot{\phi} = (r/(3\lambda))(\dot{\theta}_1 + \dot{\theta}_2 + \dot{\theta}_3) \end{cases} \Rightarrow \text{Max Values. (speed)}$$

$$\left. \begin{aligned} -128 \leq u_x \leq 128 \\ -128 \leq u_y \leq 128 \\ -255 \leq u_\phi \leq 255 \end{aligned} \right\} \Rightarrow \begin{aligned} \dot{v}_x &= \frac{u_x(\dot{v}_x)}{128}; \quad \dot{v}_y = \frac{u_y(\dot{v}_y)}{128} \\ \dot{\phi} &= \frac{u_\phi(\dot{\phi})}{255} \end{aligned}$$

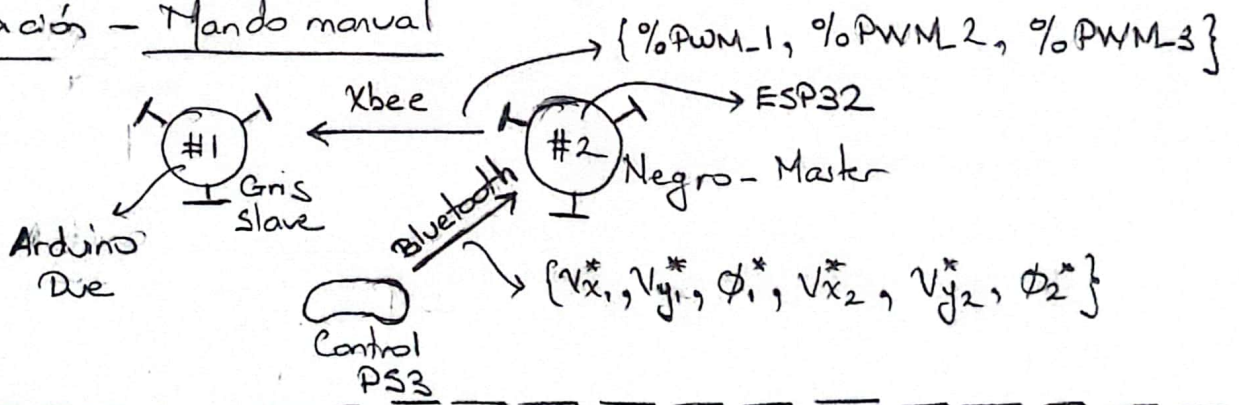
$$\begin{bmatrix} \dot{\theta}_1 \\ \dot{\theta}_2 \\ \dot{\theta}_3 \end{bmatrix} = \frac{1}{r} \begin{bmatrix} -1/2 & \sqrt{3}/2 & 1 \\ -1/2 & -\sqrt{3}/2 & 1 \\ 1 & 0 & 1 \end{bmatrix} \begin{bmatrix} u_x(\dot{v}_x)/128 \\ u_y(\dot{v}_y)/128 \\ u_\phi(\dot{\phi})/255 \end{bmatrix};$$

$$u_{\theta i} = \frac{\dot{\theta}_i}{\dot{\theta}_i} (100) \Rightarrow \dot{\theta}_i = \frac{u_{\theta i} \dot{\theta}_i}{100}$$

$$\begin{bmatrix} u_{\theta 1}(\dot{\theta}_1) \\ u_{\theta 2}(\dot{\theta}_2) \\ u_{\theta 3}(\dot{\theta}_3) \end{bmatrix} = \frac{100}{r} \begin{bmatrix} -1/2 & \sqrt{3}/2 & 1 \\ -1/2 & -\sqrt{3}/2 & 1 \\ 1 & 0 & 1 \end{bmatrix} \begin{bmatrix} u_x(\dot{v}_x)/128 \\ u_y(\dot{v}_y)/128 \\ u_\phi(\dot{\phi})/255 \end{bmatrix}$$



Configuración - Mando manual



Configuración - Mando Automatico

