.**\\**

x**\\**

**&**=a**+**b**\\**

**&**=rcos**\theta+\sqrt{**l**^2-(**sin**\theta(**r**))^2}\\**

v**\\**

**&**=**\frac{**dx**}{**dt**}\\**

**&**=**-r \dot{\theta} sin\theta - \frac{r^2 \theta sin\theta cos\theta}{\sqrt{**l**^2-(**sin**\theta(**r**))^2}}**