1. Hercos

Perceptions:

 $O \rightarrow \text{Obstacle exists}$

Actions:

 $F o \mathrm{Go} \; \mathrm{forward}$

 $L o {
m Turn} \; 90^{
m o} \; {
m to} \; {
m the} \; {
m left}$

 $R o {
m Turn} \ 90^{
m o} \ {
m to} \ {
m the} \ {
m right}$

Memory Start:

States:

- F (The agent is roaming freely without having recently found an obstacle)
- *O* (The agent is currently going around an obstacle)

$$M = [F]$$

Production System:

$$M=[C] \lor M=[F],\ O
ightarrow L,\ M=[C] \ M=[C],\ \neg O
ightarrow F,\ R,\ M=[C] \ M=[F],\ \neg O
ightarrow F,\ M=[F]$$

5. Covardex

Perceptions:

 $O o ext{Oponent in front}$

 $E_c o ext{Covardex's energy}$

 $E_o o ext{Oponent's energy}$

 $\operatorname{comp}(x,y) o \operatorname{True} \operatorname{if} \, x \geq y$

Actions:

 $F o \mathrm{Go} \ \mathrm{forward}$

 $L o {
m Turn} \ 90^{
m o} \ {
m to} \ {
m the} \ {
m left}$

 $R o {
m Turn} \; 90^{
m o} \; {
m to} \; {
m the} \; {
m right}$

 $K \to \text{Kill openent in front}$

Production System:

$$egin{aligned} E_c &\leq 0
ightarrow ext{nil} \ O \wedge
egthinspace{-1mu} & C \wedge \operatorname{comp}(E_c, E_o)
ightarrow K \ O \wedge \operatorname{comp}(E_c, E_o)
ightarrow K \
egthinspace{-1mu} & \neg O
ightarrow F \end{aligned}$$

11. Novamente Hercos

Perceptions:

 $O o ext{Oponent}$ in front $E_c o ext{Covardex's energy}$ $E_o o ext{Oponent's energy}$ $ext{comp}(x,y) o ext{True if } x\geq y$

Actions:

 $F
ightarrow {
m Go} \ {
m forward}$ $L
ightarrow {
m Turn} \ 90^{
m o} \ {
m to} \ {
m the} \ {
m left}$ $R
ightarrow {
m Turn} \ 90^{
m o} \ {
m to} \ {
m the} \ {
m right}$ $K
ightarrow {
m Kill} \ {
m oponent} \ {
m in} \ {
m front}$

Production System:

$$egin{aligned} E_c & \leq 0
ightarrow ext{nil} \ O \wedge
egthinspace{-1mu} & Comp(E_c, E_o)
ightarrow L \ O \wedge ext{comp}(E_c, E_o)
ightarrow K \
egthinspace{-1mu} & \neg O
ightarrow F \end{aligned}$$