1. turn 0

   (a) Deploy: Turret and ==upgrade== at {[3,12],[24,12],[10,10],[17,10]}; Wall at{[2,12],[2,13], [4,12],[23,12],[24,13],[25,12]}.

   (b) Delete: {[2,12],[2,13], [4,12],[23,12],[24,13],[25,12]}

2. turn 1

   (a) Deploy: Wall at{[1,13],[2,12],[3,13],[24,13],[25,12],[26,13]},Support at[17,6], **7** scout at [20,6].

   (b) Delete: {[1,13],[2,12],[3,13],[24,13],[25,12],[26,13],[17,6]}.

3. turn 2

   (a) Deploy: Wall at{[4,11],[5,10],[6,9],[7,8],[8,7],[9,6],[10,5],[11,4],[12,3],[13,2],[14,2]}, {[15,3],[16,4],[17,5],[18,6],[19,7],[20,8]},{[0,13],[1,13],[2,13],[26,13],[27,13]}. Interceptor at{[22,8],[23,9]}.

   (b) Delete: {[0,13],[1,13],[2,13],[26,13],[27,13],[10,10],[17,10]}.

4. turn 3

   (a) Deploy: Wall at[0,13],[1,13],[2,13],[4,13],[24,13],[25,13],[26,13],[27,13], {[4,12],[21,12],[22,12][23,12],[19,9],[19,10],[20,10]}. Turret at {[20,9],[22,11]} **2** Interceptor at [22,8].

   (b) Delete:{[0,13],[1,13],[2,13],[4,13],[24,13],[25,13],[26,13],[27,13]}, {[4,12],[21,12],[22,12][23,12],[19,9],[19,10],[20,10] },{[20,9],[22,11]}.

5. turn 4

   (a) Deploy: Turret and ==upgrade== at [20,9]. Turret at [22,11]. wall at {[0,13],[1,13],[2,13],[4,13],[24,13],[25,13],[26,13],[27,13]} , {[4,12],[23,12]}. **2** Interceptor at [22,8].

   (b) Delete:{[0,13],[1,13],[2,13],[4,13],[24,13],[25,13],[26,13],[27,13]} , {[4,12],[23,12]} .

6. Deploy strategy starting from turn 5

   (a) self repair 7(a) to 7(f).

   (b) 9(a) to 9(b) to determine offense or not, active defense or not.

(c) Define $S(MP_l, SP_l, H, MPo, SPo, Ho) = MP_r$. MP_l, SP_l, H are my MP left, SP left and health(defined in step 9), MPo, SPo, Ho are opponents' MP,SP and health. MP_r is the MP used for more construction, the order of construction is in 7(g).

7. Static Defense starting from turn 5

   (a) self-repair-1: make sure those walls exist and delete those with less than half life and rebuild it next turn:(equally important)
   {[4,11],[5,10],[6,9],[7,8],[8,7],[9,6],[10,5],[11,4],[12,3],[13,2],[14,2]},
   {[15,3],[16,4],[17,5],[18,6],[19,7],[20,8]}

   (b) self-repair-2: make sure those walls exist and delete those with less than half life and rebuild it next turn:(equally important, if resources is limited, build them with un-upgraded one, if resources is still limited, build them with walls)
   {[3,12],[24,12]}

   (c) self-repair-3: make sure those walls exist and delete those with less than half life and rebuild it next turn:(equally important, if resources is limited, build them with un-upgraded one, if resources is still limited, build them with walls)
   {[20,9],[22,11]}

   (d) build wall and delete them:(turn 5 - 20)
   {[2,13],[3,13],[24,13],[25,13]} , {[4,12],[23,12]}.

   (e) build wall and self-repair-4:(21-50)
   {[2,13],[3,13],[24,13],[25,13]} , {[4,12],[23,12]}.

   (f) build wall upgraded and self-repair-4:(51-100)
   {[2,13],[3,13],[24,13],[25,13]} , {[4,12],[23,12]}.

   (g) build and self-repair-5 if we have extra resources:(turn 5-100) the following is in order
   wall {[19,11],[20,11]}
   Turret [20,10]
   Turret [19,10]
   Turret upgrade [20,10]
   Turret upgrade [19,10]
   wall upgrade {[19,11],[20,11]}
   Turret [22,12]

2

Turret update[22,12]
Wall {[4,13],[5,13],[6,13],[17,12],[18,12],[19,12],[17,11][18,11]}
Wall upgrade {[4,13],[5,13],[6,13],[17,12],[18,12],[19,12],[17,11][18,11]}

8. Active Defense from turn 5

   (a) build wall and delete them:(turn 5 - 20)(left)
   {[0,13],[1,13]}.
   if the Opponent's Mobile points is greater than 15 and if
   {[1,14],[2,14]} or {[1,14],[1,15]} are empty or deleted.
   build wall and delete them:
   {[1,13]}.
   build wall upgraded and delete them:
   {[0,13]}.
   if the Opponent's Mobile points is greater than 25 and if
   {[1,14],[2,14]} or {[1,14],[1,15]} are empty or deleted.
   build wall and delete them:
   {[1,13]}.
   build wall upgraded and delete them:
   {[0,13]}
   build Turret and delete them:
   {[1,12]}.
   if the Opponent's Mobile points is greater than 35 and if
   {[1,14],[2,14]} or {[1,14],[1,15]} are empty or deleted.
   build wall and delete them:
   {[1,13]}.
   build wall upgraded and delete them:
   {[0,13]}
   build updated Turret and delete them:
   {[1,12]}.
   if the Opponent's Mobile points is greater than 45 and if
   {[1,14],[2,14]} or {[1,14],[1,15]} are empty or deleted.
   build wall and delete them:
   {[1,13]}.
   build wall upgraded and delete them:
   {[0,13]}
   build updated Turret and delete them:
   {[1,12],[2,12]}.

(b) build wall and delete them:(turn 5 - 20)(right)
{[26,13],[27,13]}.
if the Opponent's Mobile pointsis greater than 15 and if
{[26,14],[2,15]} or {[26,14],[25,15]} are empty or deleted.
build wall and delete them:
{[26,13]}.
build wall upgraded and delete them:
{[27,13]}.
if the Opponent's Mobile pointsis greater than 25 and if
{[26,14],[2,15]} or {[26,14],[25,15]} are empty or deleted.
build wall and delete them:
{[26,13]}.
build wall upgraded and delete them:
{[27,13]}.
build Turret and delete them:
{[26,12]}.
if the Opponent's Mobile points is greater than 35 and if
{[26,14],[2,15]} or {[26,14],[25,15]} are empty or deleted.
build wall and delete them:
{[26,13]}.
build wall upgraded and delete them:
{[27,13]}.
build Turret upgraded and delete them:
{[26,12]}.
if the Opponent's Mobile points is greater than 45 and if
{[26,14],[2,15]} or {[26,14],[25,15]} are empty or deleted.
build wall and delete them:
{[26,13]}.
build wall upgraded and delete them:
{[27,13]}.
build Turret upgraded and delete them:
{[26,12],[27,12]}.

9. Offense

(a) define x = total number of upgraded Turret in {[1,15],[2,15]}, y =
total number of upgraded Turret in {[1,14],[2,14] [3,14]}, z = total
number of Turret(not upgraded) in {[1,15],[2,15],[1,14],[2,14] [3,14]}.

define $\bar{x}$ = total number of upgraded Turret in $\{[25,15],[26,15]\}$, y = total number of upgraded Turret in $\{[24,14],[25,14],[26,14]\}$, z = total number of Turret(not upgraded) in $\{[25,15],[26,15],[24,14],[25,14]\,[26,14]\}$.

MP is my mobile points, SP is my structure points. Define $O(x, y, z, \bar{x}, \bar{y}, \bar{c}, MP, SP, H) = (a, b, c, d, e, f, MP_l, SP_l)$, where a is the first round scout needed, b is the second round scout needed, c is the support needed, d is the Demolisher needed, e is the Interceptor needed. f controls the position of scout. MP_l is the MP left after deploy offense or active defese. SP_l is the SP left after deploy offense or active defese. H is my health

(b) If $d \neq 0$ or $e \neq 0$, put Demolisher at [15,1] and Interceptor at [19,5]. If $c \neq 0$, put support in $\{[13,3],[14,3],[15,4],[16,5],[17,6],[18,7],[14,4],[15,5],[16,6],[17,7]\}$ orderly.

(c) If $a \neq 0$ or $b \neq 0$ and $f = 1$, put first scout at[11,2], second scout at [10,3] and Stop right active defense for 1 turn, else continue right active defense. If $a \neq 0$ or $b \neq 0$ and $f = 2$, put first scout at[19,5], second scout at [20,6] and Stop left active defense for 1 turn, else continue right active defense.