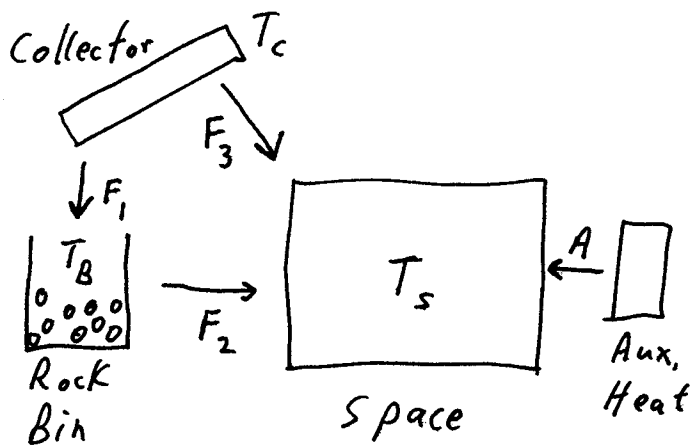


# Solar Heating System

| H | B | C | S | $F_1$ | $F_2$ | $F_3$ | A | Comments |
|---|---|---|---|-------|-------|-------|---|----------|
| 0 | 0 | 0 | 0 |       |       |       |   |          |
| 0 | 0 | 0 | 1 |       |       |       |   |          |
| 0 | 0 | 1 | 0 |       |       |       |   |          |
| 0 | 0 | 1 | 1 |       |       |       |   |          |
| 0 | 1 | 0 | 0 |       |       |       |   |          |
| 0 | 1 | 0 | 1 |       |       |       |   |          |
| 0 | 1 | 1 | 0 |       |       |       |   |          |
| 0 | 1 | 1 | 1 |       |       |       |   |          |
| 1 | 0 | 0 | 0 |       |       |       |   |          |
| 1 | 0 | 0 | 1 |       |       |       |   |          |
| 1 | 0 | 1 | 0 |       |       |       |   |          |
| 1 | 0 | 1 | 1 |       |       |       |   |          |
| 1 | 1 | 0 | 0 |       |       |       |   |          |
| 1 | 1 | 0 | 1 |       |       |       |   |          |
| 1 | 1 | 1 | 0 |       |       |       |   |          |
| 1 | 1 | 1 | 1 |       |       |       |   |          |



(Are some input combinations impossible if sensors operate properly?)

$H=1$  : Space needs heat.

$B=1$  :  $T_B > T_s$

$C=1$  :  $T_c > T_B$

$S=1$  :  $T_c > T_s$