The model for annotation
(NOT to be removed from the Examination Room)

```
#define top 3
#define floors 4
#define ground 0
chan opendoor[floors] = [0] of {byte};
chan closedoor[floors] = [0] of {byte};
chan opend[floors] = [0] of {byte};
chan closed[floors] = [0] of {byte};
chan call = [0] of {byte};
chan doorbutton = [0] of {byte};
byte floor=ground;
bool calls[floors];

proctype door(byte i)
{ byte any;
  do
  :: opend[i]?any -> {opendoor[i]!any; closedoor[i]!any; closed[i]?any}
  od
}

proctype lift()
{
  byte x;

  bool uptag=true;
  do
  :: call?x -> calls[x]=true
  :: calls[floor] -> {opendoor[floor]?x;
                      do
                      :: doorbutton?x -> calls[x]=true
                      :: true -> break
                      od;
                      closedoor[floor]?x;
                      calls[floor]=false
                      }
  :: !calls[floor] -> if
                      :: (floor!=top) && uptag -> floor++
                      :: (floor!=ground)&& !uptag -> floor--
                      :: (floor==top) -> uptag=false
                      :: (floor==ground) -> uptag=true
                      fi
   od
}

proctype user(byte f; byte t)
  {call!f;opend[f]!f; doorbutton!t; closed[f]!f}

init {
       run door(ground);
       run door(1);
       run door(2);
       run door(top);
       run lift();
       run user(ground,top);
       run user(1,top);
       run user(2, ground)
     }
```