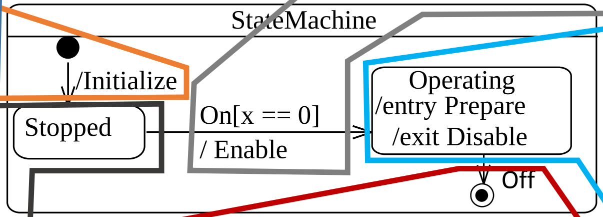
```
class StateMachine:public CompositeState {
private:
  Stopped* stopped; Operating* operating; public:
  bool transition(Stopped* state, On* event);
  bool transition(Operating* state, Off* event);
  void setIniDefaultState();}
```

```
void StateMachine::setIniDefaultState(){
  this->context->Initialize();
  this->activeSubState = stopped;
  this->activeSubState->entry();
}
```

```
class Stopped: public State{
private:
  StateMachine* ancestor;
public:
  virtual bool processEvent(On*event){
    return this->ancestor
        ->transition(this,event);}
}
```



```
bool StateMachine::transition(Stopped*state,On*event){
  if(this->context->guard(event)){
    this->activeSubState->exit();
    this->context->Enable(event);
    this->activeSubState = this->operating;
    this->activeSubState->entry();
    return true;}
  return false; }
```

```
class Operating: public State {
private:
  StateMachine* ancestor;
public:
  virtual bool processEvent(Off* event) {
    return this->ancestor->transition(this,event); }
    virtual void onEntryAction() {
        this->context->Prepare();}
    virtual void onExitAction() {
        this->context->Disable();}}
```

```
bool StateMachine::transition(
      Operating*state,Off*event){
  this->activeSubState->exit();
  //no action defined
  this->activeSubState = NULL;
  return true; }
```