3 types of instructions:
- Data
- Memory
- Control (special)

Lift the processor

Get instruction

PC \rightarrow \text{mem}

Instruction word

Update PC

PC = PC + 4
Virtual Memory

pagetable

Processor

Get IV at PC

PA=VA

phys  virt

pages  4kB
$\text{copyout}(\text{pagedata}, \text{UVA}, \text{KVA}, \text{size})$
```

call uproc
struct uproc_up;
uproc (p.id, dup)
```

Diagram:
- Page table
- Kernel
- RAM
- Heap
- Stack
- Data
- Code
- User virtual addresses
- UVA
- PA
- Struct uproc
- Uproc (p.id, dup)
Interrupts

Processor

Timer Device

100ms