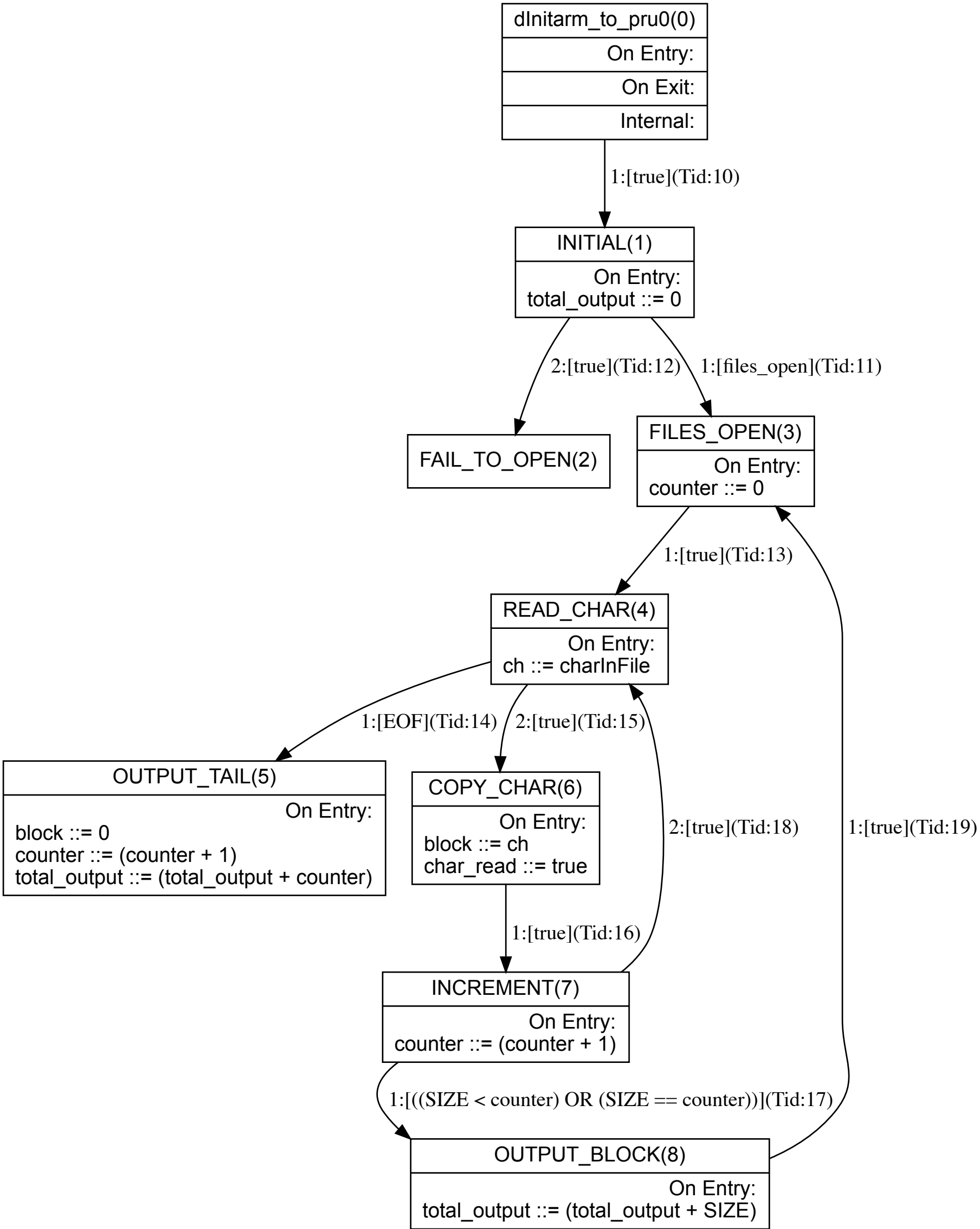Arrangement of LLFSMs ||** ArmSideSender **||. The llfsms = (file_generator,arm_to_pru0)

Integer Sensor = [(charInFile:0..ASCII_VALUES)]

Boolean Sensor = [(files_open:boolean),(NonDeterministicEOF:boolean)]

Boolean Whiteboard = [(EOF:boolean),(char_read:boolean)]

Constants = [SIZE=4,SIZEP1=5,ASCII_VALUES=255,MAX_FILE_SIZE=100]

---

arm_to_pru0(ID:1) turn(1)

Boolean Whiteboard Variables in LHS = [char_read]

Boolean WB in LHS Shared = [char_read]

Local Integer = [(counter:0..SIZEP1),(ch:0..255),(block:0..255),(total_output:0..MAX_FILE_SIZE)]

dInitarm_to_pru0(0)
On Entry:
On Exit:
Internal:

1:[true](Tid:10)

INITIAL(1)
On Entry:
total_output ::= 0

2:[true](Tid:12)   1:[files_open](Tid:11)

FAIL_TO_OPEN(2)

FILES_OPEN(3)
On Entry:
counter ::= 0

1:[true](Tid:13)

READ_CHAR(4)
On Entry:
ch ::= charInFile

1:[EOF](Tid:14)   2:[true](Tid:15)

OUTPUT_TAIL(5)
On Entry:
block ::= 0
counter ::= (counter + 1)
total_output ::= (total_output + counter)

COPY_CHAR(6)
On Entry:
block ::= ch
char_read ::= true

1:[true](Tid:16)

INCREMENT(7)
On Entry:
counter ::= (counter + 1)

1:[((SIZE < counter) OR (SIZE == counter))](Tid:17)   2:[true](Tid:18)

OUTPUT_BLOCK(8)
On Entry:
total_output ::= (total_output + SIZE)

1:[true](Tid:19)

---

file_generator(ID:0) turn(0)

Boolean Whiteboard Variables in LHS = [char_read,EOF]

Boolean WB in LHS Owner = [EOF]

Boolean WB in LHS Shared = [char_read]

Local Integer = [(total_chars_generated:0..MAX_FILE_SIZE)]

dInitfile_generator(0)
On Entry:
On Exit:
Internal:

1:[true](Tid:00)

SET_UP(1)
On Entry:
total_chars_generated ::= 0
EOF ::= false

1:[true](Tid:01)

TEST_EOF(2)
On Entry:
EOF ::= (EOF OR (NonDeterministicEOF OR (MAX_FILE_SIZE < (total_chars_generated + 2))))
char_read ::= false

1:[(NOT EOF)](Tid:02)   1:[char_read](Tid:03)

GENERATE_CHAR(3)
On Entry:
total_chars_generated ::= (total_chars_generated + 1)