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<?xml version="1.0" encoding="utf-8"?>
<!DOCTYPE nta PUBLIC "-//Uppaal Team//DTD Flat System 1.6//EN" 'http://www.it.uu.se/research/group/darts/uppaal/flat-1_6.dtd'>
<nta>
<declaration>// Place global declarations here.

int coins=0;
chan start, stop, tooLate, tooEarly, reward;
broadcast chan freePizzzzza;</declaration>
<template>
<name x="5" y="5">watch</name>
<declaration>// Place local declarations here.
clock x;</declaration>
<location id="id0" x="-1020" y="-374">
</location>
<location id="id1" x="-858" y="-578">
</location>
<location id="id2" x="-663" y="-374">
<committed/>
</location>
<init ref="id0"/>
<transition id="id3">
<source ref="id2"/>
<target ref="id0"/>
<label kind="guard" x="-858" y="-238">x<10</label>
<label kind="synchronisation" x="-858" y="-221">tooEarly!</label>
<nail x="-850" y="-246"/>
</transition>
<transition id="id4">
<source ref="id2"/>
<target ref="id0"/>
<label kind="guard" x="-867" y="-476">x>10</label>
<label kind="synchronisation" x="-867" y="-459">tooLate!</label>
<nail x="-850" y="-434"/>
</transition>
<transition id="id5">
<source ref="id2"/>
<target ref="id0"/>
<label kind="guard" x="-867" y="-365">x==10</label>
<label kind="synchronisation" x="-867" y="-348">reward!</label>
<label kind="assignment" x="-867" y="-331">coins+=10</label>
</transition>
<transition id="id6">
<source ref="id1"/>
<target ref="id2"/>
<label kind="synchronisation" x="-748" y="-493">stop?</label>
</transition>
<transition id="id7">
<source ref="id0"/>
<target ref="id1"/>
<label kind="synchronisation" x="-1011" y="-501">start?</label>
<label kind="assignment" x="-1011" y="-484">x=0</label>
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<nail x="-935" y="-484"/>
</transition>
</template>
<template>
<name>user</name>
<location id="id8" x="-1190" y="-136">
<committed/>
</location>
<location id="id9" x="-1105" y="-289">
</location>
<location id="id10" x="-1292" y="-289">
</location>
<init ref="id9"/>
<transition id="id11">
<source ref="id8"/>
<target ref="id9"/>
<label kind="guard" x="-1241" y="-204">coins<math>\leq 10</math></label>
</transition>
<transition id="id12">
<source ref="id8"/>
<target ref="id9"/>
<label kind="guard" x="-1088" y="-187">coins<math>\geq 10</math></label>
<label kind="synchronisation" x="-1088" y="-170">freePizzzzzza!</label>
<label kind="assignment" x="-1088" y="-153">coins-=10</label>
<nail x="-1105" y="-136"/>
</transition>
<transition id="id13">
<source ref="id10"/>
<target ref="id8"/>
<label kind="synchronisation" x="-1292" y="-127">reward?</label>
<nail x="-1292" y="-136"/>
</transition>
<transition id="id14">
<source ref="id10"/>
<target ref="id9"/>
<label kind="synchronisation" x="-1224" y="-246">tooEarly?</label>
<nail x="-1198" y="-255"/>
</transition>
<transition id="id15">
<source ref="id10"/>
<target ref="id9"/>
<label kind="synchronisation" x="-1232" y="-314">tooLate?</label>
</transition>
<transition id="id16">
<source ref="id9"/>
<target ref="id10"/>
<label kind="synchronisation" x="-1224" y="-348">stop!</label>
<nail x="-1198" y="-331"/>
</transition>
<transition id="id17">
<source ref="id9"/>
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<target ref="id9"/>
<label kind="synchronisation" x="-1011" y="-297">start!</label>
<nail x="-1020" y="-331"/>
<nail x="-1020" y="-246"/>
</transition>
</template>
<system>// Place template instantiations here.

// List one or more processes to be composed into a system.
system watch, user;
</system>
<queries>
<query>
<formula/>
<comment/>
</query>
<query>
<formula>A[]not deadlock</formula>
<comment/>
<result outcome="success" type="quality" timestamp="2025-05-19 13:26:11 +0200">
</result>
</query>
<query>
<formula>E<&lt;&gt; coins &gt;=10</formula>
<comment/>
<result outcome="success" type="quality" timestamp="2025-05-19 13:25:55 +0200">
</result>
</query>
</queries>
</nta>
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